ECEMBER 11, 1961
Volume 50, No. 25

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OFFICIAL
PUBLICATION
OF THE
PROCEEDINGS
AMERICAN
ASSOCIATION
OF
TEXTILE
CHEMISTS
AND
COLORISTS

AMERICAN DYESTUFF REPORTER

TEXTILE WET-PROCESSING

TWENTY-SIXTH ANNUAL PROCESSING REVIEW NUMBER

CIBA

it works
while
you sleep

Cibacron
cold
pad-batch
technique

SEE PAGE 151

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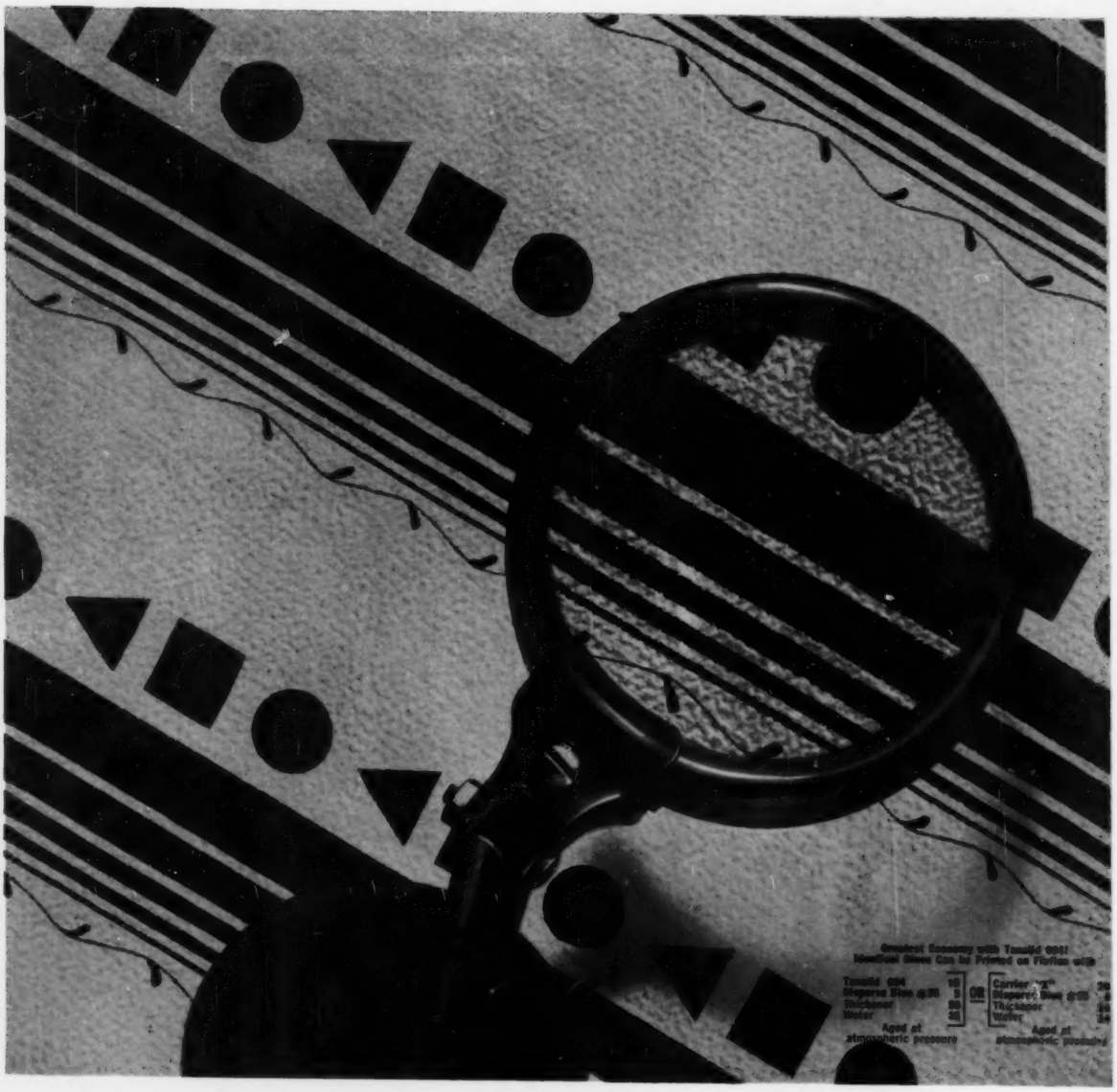

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Clear, sharp prints on polyester and triacetate fabrics • Clear, sharp prints on all constructions, including Fluflon* • Full fixation by dry heat (5 minutes at 300°F).• Full fixation by ageing at atmospheric pressure • Produces equal or better color value than cottage steaming • Outstanding fastness to crocking and washing • Permits use of wide range of acetate dyes • Compatible with cationic dyes • Proved on millions of yards

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TANAPON X-70 REMOVES MORE FATTY EXTRACTABLES FROM GREIGE GOODS THAN SOLVENT SCOURS.

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Radiant, wash-fast reds that have become the standard of comparison in successful Napthol dyeing. Combinations assuring extensive shade variety throughout the red range and into gold. Perfect for red cotton rugs, toweling, shirtings, sportswear, corduroy. Outstanding for light fastness. For expert help with the Napthol process, write or call your Koppers representative at our nearest branch.

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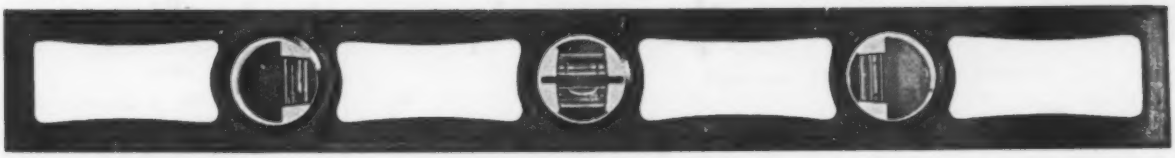
an efficient wool dyeing auxiliary and



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Anthomine achieves a full shade in dyeing tippy and blended wool.

Thousands of pounds of Anthomine have enabled U.S. and Canadian mills, in the past ten years, to meet rigid government specifications in the dyeing of wool for military fabrics.

It possesses good softening qualities, leaving the wool with a very pleasing, rich hand, of special value in strong acid dyeing which otherwise would harshen the fibers.

Anthomine also provides excellent exhaustion of the dyebath and speeds up dyeing operation.

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Ask your Arkansas representative for full details, or write for Technical Service Bulletin.

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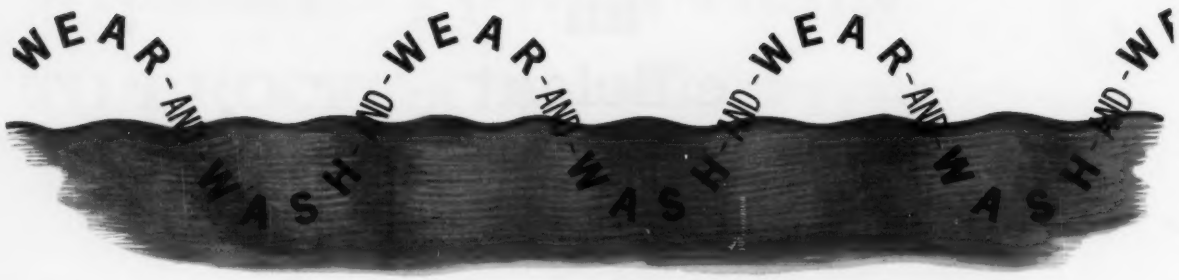

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Finishes can now be produced which withstand laundering over and over again — and stay soft!

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Ahcovel NW is readily miscible with cold water. It may be used with a wide range of resin precondensates and catalysts, thus providing adaptability to numerous thermosetting resin bath formulations.

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AMERICAN DYESTUFF REPORTER

TEXTILE WET PROCESSING EXCLUSIVELY

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American Dyestuff Reporter was founded in 1917 and the Textile Colorist was incorporated with it in January, 1949. Published every other Monday, by the HOWES PUBLISHING COMPANY, INC, 44 East 23rd Street, New York 10, NY. C R Howes, president; Ernest J Finan, executive vice president; Norman A Johnson, vice president & treasurer; Myron D Reeser, vice president; Clara Patrick, secretary.

Telephone SPring 7-9364

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staff prepared

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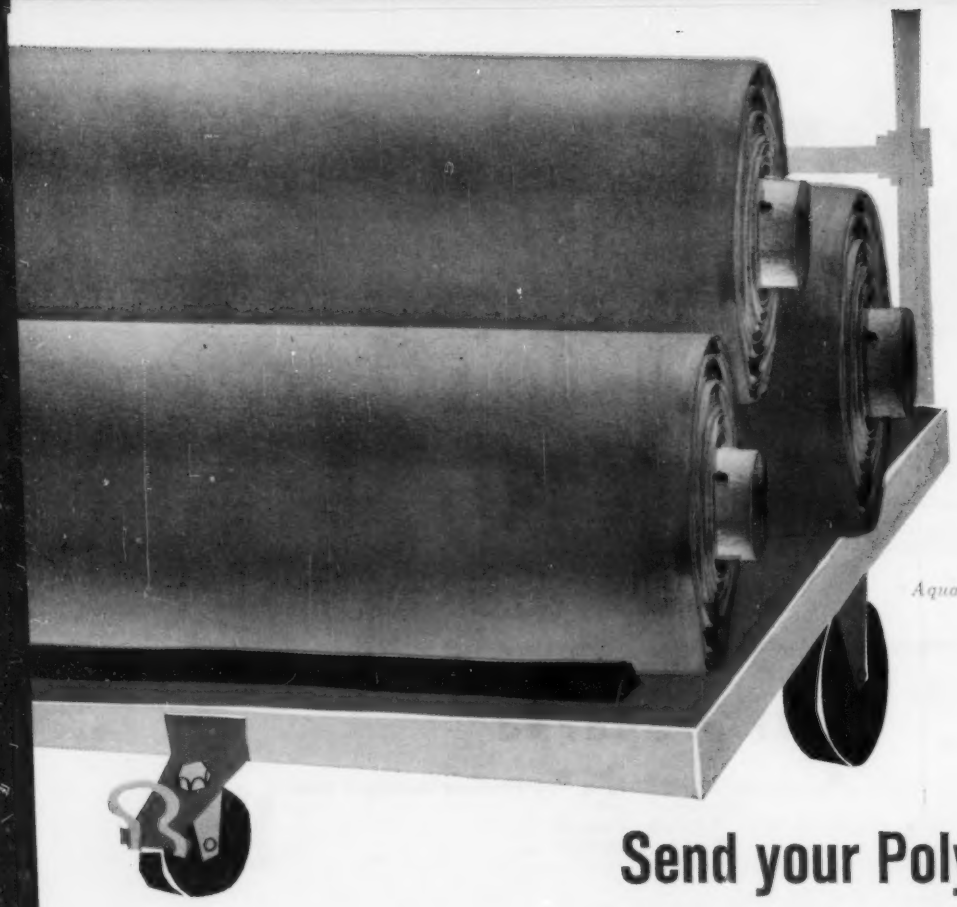

Send your Polyester Fabrics to market protected by the Outstanding Fastness of Eastman Polyester Dyes

Your Eastman representative will be glad to tell you about the performance advantages and economy of these dyes

Light shades, dark shades—as the demand for fabrics containing polyester fibers continues to grow, dyers are being called upon to deliver more shades, brighter shades, faster shades.

In step with this trend, Eastman offers an expanding series of polyester dyes, providing the best all 'round fastness characteristics of polyester dyes currently available.

Specifically developed for use with polyester fibers, these dyes exhibit outstanding fastness to washing, light, sublimation, crocking, perspiration, dry cleaning and wet pressing.

Equally important are their excellent processing characteristics...good build-up, good exhaustion and outstanding leveling properties.

Dyeing with Eastman Polyester Dyes is easily accomplished with carriers or under pressure at elevated temperatures. Fibers can be readily dyed as tow, tops, stock, or fabric. Fabrics of polyester filament can be conveniently dyed in jigs. Fabrics woven of spun polyester yarns alone or blended with cotton, viscose or wool can be easily dyed in dye-becks.

Get the full story of this outstanding line of dyes for polyester fabrics from your Eastman representative. Formulations and technical assistance on dyeing procedures are readily available.

Eastman Polyester Dyes

Eastman Polyester Dyes are sold in the United States by **EASTMAN CHEMICAL PRODUCTS, INC.**, subsidiary of EASTMAN KODAK COMPANY, in Kingsport, Tennessee; Lodi, New Jersey; and Greensboro, North Carolina. On the **West Coast** through WILSON & GEO. MEYER & COMPANY, San Francisco, Los Angeles, Portland, Seattle, Salt Lake City. In **Canada** through CLOUGH DYESTUFF CO., LTD., St. Laurent, P. Q.

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* Try this formula on your next lot of aqua.
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3 g./l. of a suitable carrier
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Polyester Blue GLF
Polyester Blue GR
Polyester Brilliant Blue 2RL
Polyester Blue 3RL
Polyester Blue BLF
Polyester Blue GB
Polyester Navy G
Polyester Violet R
Polyester Brown 3RL
Polyester Black RB
Polyester Diazo Black B

ADR OPEN FORUM

(A page devoted to reader comments, general comments by the staff of *American Dyestuff Reporter*, and "letters to the editor". Names of those submitting material for this page will be withheld on request. Address letters to "Open Forum," American Dyestuff Reporter, 44 East 23rd St, New York 10, NY).

December 11, 1961

AN AMERICAN TEXTILE MACHINERY MANUFACTURER ANALYZES COMPETITION

AN interesting analysis of the competition facing American textile machinery manufacturers has been offered by Stanley Brooks, executive vice president, H W Butterworth & Sons Co.

At a time when use of the term "foreign competition" in front of many domestic textile people is like waving a red flag before a bull, we think that Mr Brooks' remarks are especially appropriate. The text of Mr Brooks' statement follows:

"The most serious problem facing the American textile machinery manufacturer is not foreign competition, but a serious domestic competitive situation that forces prices down to a point where there is virtually nothing left for research and development.

"The new management team at Buttterworth has taken a long, searching look at this situation. We have observed new developments at the international textile expositions. We have visited mills in Europe to see the new foreign equipment in operation.

"Without question the machinery manufacturers in West Germany, and in England, are investing more money in research and development in one year than the American machinery manufacturers do in five. In these countries, we have found that there is a much closer working relationship between the machinery manufacturer and the mill customer. Instead of asking five to ten machinery builders to quote on a new installation, the European mill works very closely with one or two builders.

"Under these conditions, price is not a primary concern. The machinery manufacturer develops a closer, and sounder relationship with customers. He can take a continuing interest in the performance of equipment in the mills. He can support a comprehensive research and development program.

"At Butterworth, we have reviewed recent machinery purchases with a selected group of customers. In every case, price was such an important factor that the machinery firms were literally bidding for the business.

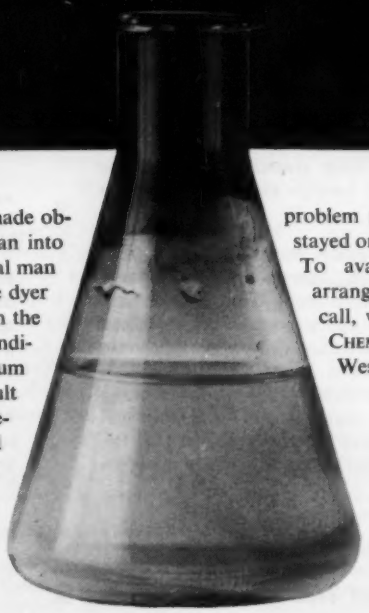
"The solution to the problem, it appears to us, lies in developing a close working relationship, practically a partnership, between the machine builder and the mill.

"Butterworth now has two such working relationships based on nondisclosure agreements. The customers like it because we are coming up with new techniques, and new automated machinery that makes it possible for them to reduce their manufacturing costs.

"In several areas where we find that foreign machine builders have a big lead at the present time, Butterworth will negotiate licensing agreements, and then will be in a position to service the equipment on an exclusive basis in the US market. One such agreement has already been completed with Kleinewefers, in West Germany, on their roller-print machines, mercerizing machines, and calenders."

Another example of "Virginia" nationwide technical service

Titration couldn't detect a 25 mv drop in reduction potential



A dyehouse accepted an order calling for a shade obtainable only with a very sensitive dye and ran into trouble. We got an SOS. A "Virginia" technical man was sent around to see what he could do. The dyer was using test papers and titration to check on the potential of the bath. Under-reduction was indicated, so the dyer was increasing the sodium hydro and getting over-reduction. The end-result was either crocking or dull shades. Our troubleshooter put his Redox recorder to work and found that the hard-to-handle dye stayed effectively soluble in approximately a 25 millivolt range. A new bath was prepared. By taking millivolt readings every 15 minutes, the exact proportions of hydro and caustic were finally established. To make sure the problem really had been solved, the "Virginia" man stayed on the job until the entire order was completed. To avail yourself of our technical service—or arrange for a free mill trial of "Virginia" hydro—call, wire or write: Chemical Division, VIRGINIA CHEMICALS & SMELTING COMPANY, Dept. 614, West Norfolk, Virginia.

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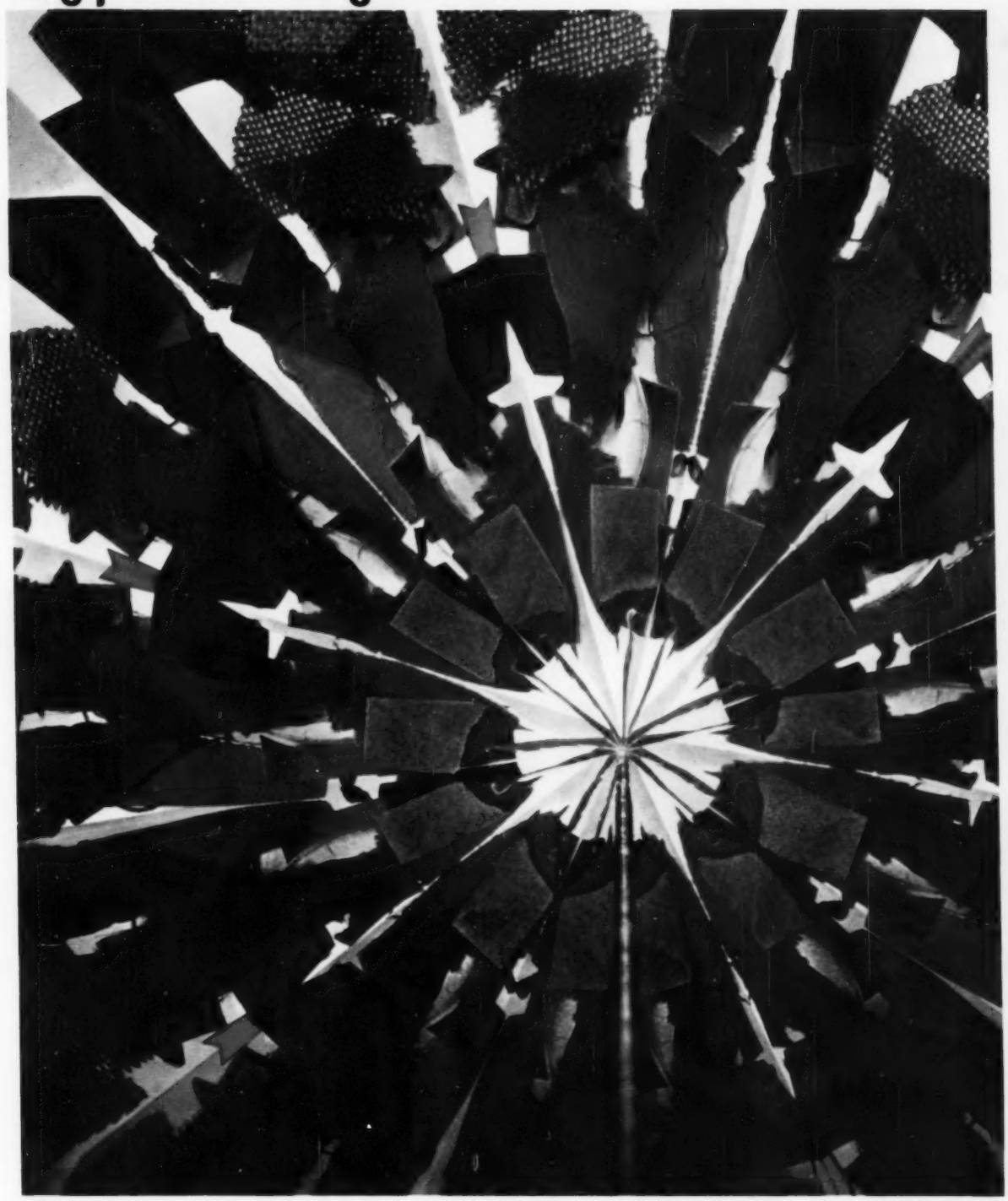

Assurance of a brighter new year for our customers is offered through an expanded program of unparalleled technical assistance.

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- Penetrants
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- Softeners
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- Water Repellents
- Weighters
- Wetting Agents

In this rapidly changing field of fibers, blends and techniques, can you really do it all yourself and make money?

APEX does not have all of the answers to wet processing problems, but we do have an experienced, diversified staff of technicians and trouble shooters.

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APEX has been developing new and improved products for textile wet processing for a long time . . . ever since 1900.

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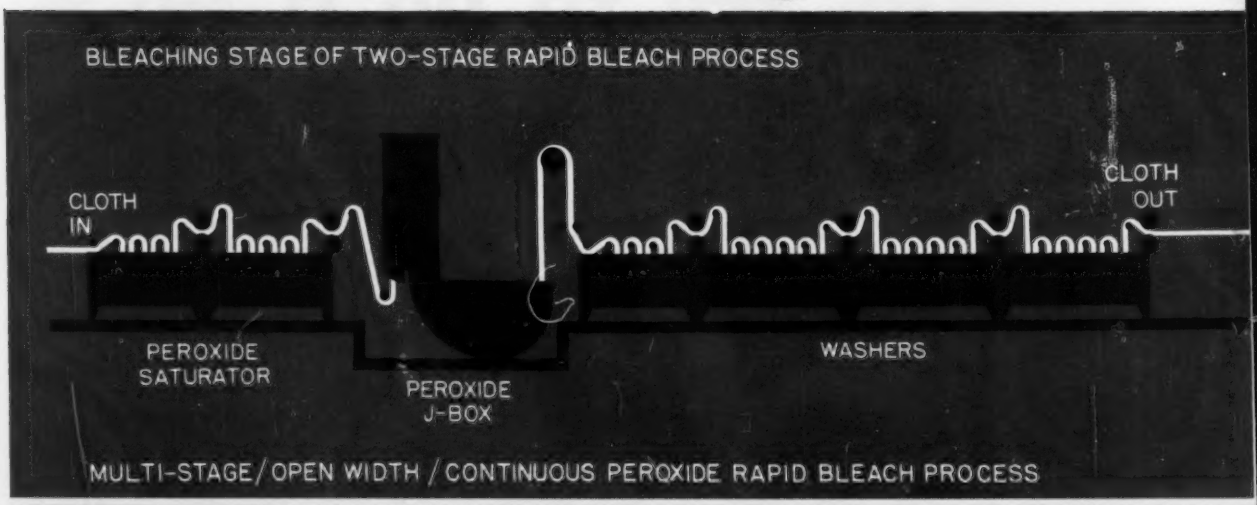

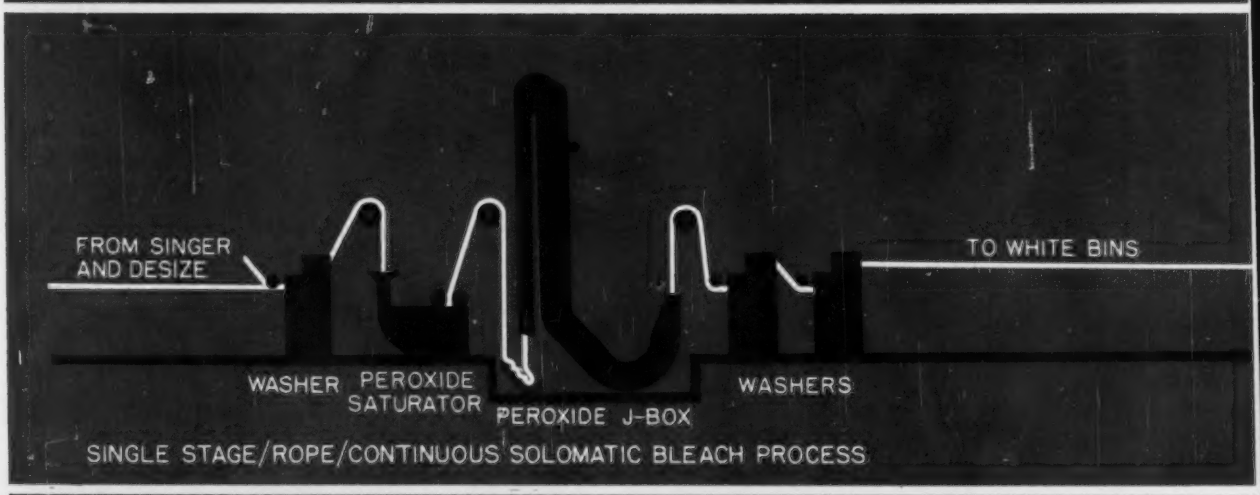

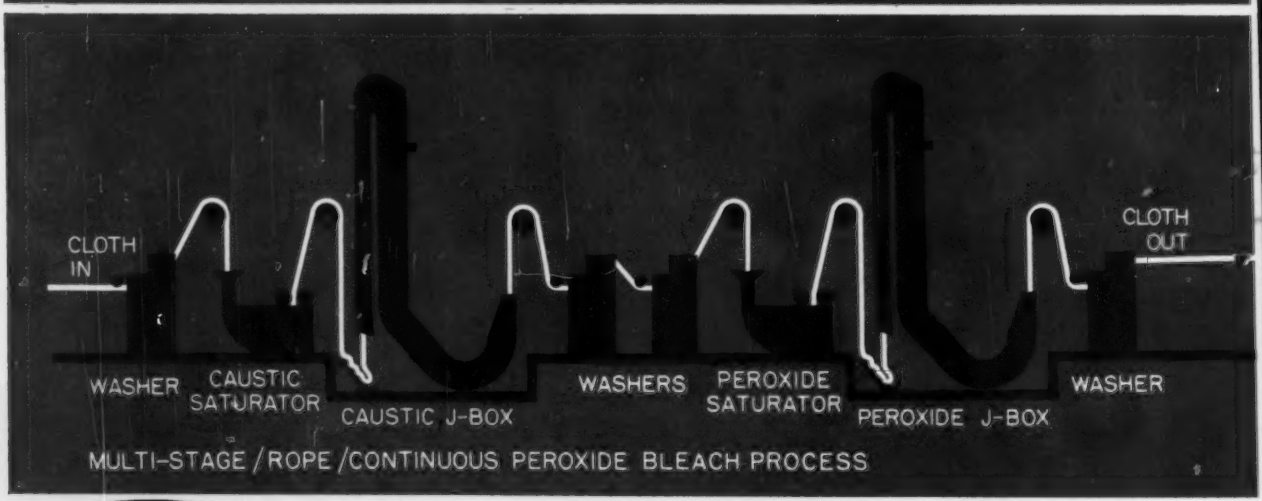

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SOLOZONE®
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one of these Du Pont processes

Whether your textile mill is large or small, the basic units shown here can be tailored to your needs. For example, they can be expanded to include desizing, acid souring, drying and/or mercerizing, or designed to fit available floor space.

Reduce costs . . . solve production problems with one of these modern Du Pont continuous processes:

◀**RAPID BLEACH PROCESS** handles medium- and heavy-weight cottons and certain synthetics. Replaces slow, costly jig process. Two stages require only 8 minutes each for cloth storage in caustic scour and peroxide bleaching. System cuts J-box costs up to 50% and reduces headroom requirements.

◀**SOLO-MATIC BLEACHING PROCESS** employs minimum equipment for handling medium- and lightweight cottons, colored yarns and cotton-synthetic fabrics. This compact, single-stage system uses highly alkaline hydrogen peroxide. For many fabrics, it eliminates the need for a caustic prescour. Occupies only 60% of space needed for two-stage range and can be operated by one man. Less power, steam and labor required.

◀**MULTI-STAGE BLEACHING PROCESSES** include both rope and open-width systems for large-volume production of medium- and some heavy-weight cotton fabrics. Utilizes simple chemical treatment in each stage. Can be set up to handle cloth speeds exceeding 250 yards per minute, to produce from 1,000 to 6,000 pounds of bleached cloth per hour, depending upon your individual plant requirements.

NEW BOOKLET AVAILABLE! For more information, contact your nearest Du Pont technical representative, or write for new booklet* which details all of Du Pont's continuous bleaching processes. Du Pont, Electrochemicals Dept., Peroxygen Products Div., Wilmington 98, Del.

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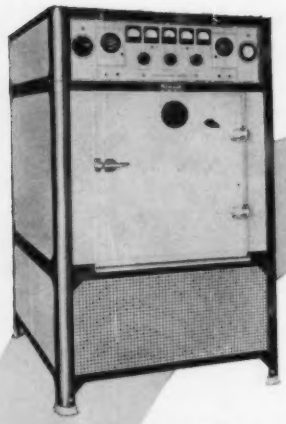

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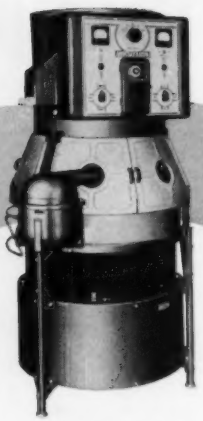

FADE-OMETER®
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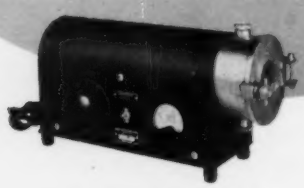
For testing color fastness to perspiration and water. A.A.T.C.C. test methods 15-1960 and 63-1957. Price $41.00.



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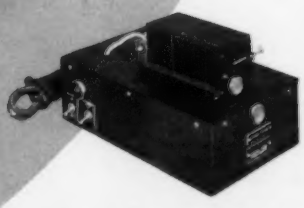

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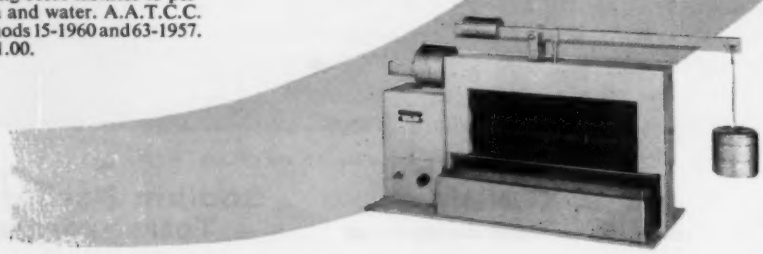
Standard A.A.T.C.C. tester for damage caused by retained chlorine in fabrics. Price $230.00.



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WELL-GROOMED AND OLEIC ACID HELPED

His detergent soap . . . liquid shampoo . . . and hair dressing depend in part on derivatives of Oleic Acid for their effectiveness. Amine soaps of this fatty acid provide good detergent action, act as non-ionic emulsifiers and emollients in many cosmetic formulations.

MORE COLORING FUN

Stearic Acid keeps crayons from going limp in little fingers. It imparts hardness and non-melting characteristics, also serves as a pigment binder. Shades stay true, whites won't yellow.

Below are facts you should know about two Fatty Acids produced by A. Gross. Why not write us for samples and additional information on these and other Fatty Acids we produce. Send for the latest edition of the brochure "Fatty Acids in Modern Industry". Address Dept. ADR-5.

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Titre	57°—59°C.	3°C. max.
Titre	134.5°—138°F.	37.4°F. max.
Color 5¼" Lovibond Red*	2.0 max.	1 max.
Color 5¼" Lovibond Yellow*	10 max.	10 max.
Unsaponifiable	0.75% max.	1.5% max.
Saponification Value	204—207	198—203
Acid Value	203—206	197—202
% F.F.A. as Oleic Acid		99 min.
Iodine Value (WIJS)	4—6	95 max.
Refractive Index 50°C. (Av.)		1.4505

* 1" cell for GROCO 2

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Atlantic Resinfast Black RLW*

New, Low-Cost Non-Bronzing Mill Proved Black

For Use on Cotton and Rayon; Dyes Nylon, Wool and Silk • Fast to Resin and Crease-Proof Finishes, Water Repellents and Copper-Containing Dye Fixing Agents • Good Acetate Reserve • Excellent Solubility and Leveling Properties • Light and Wash Fast • Acid and Alkali Fast • Usable on Jig, Beck, Package Machine & Padder

A product of Atlantic Chemical Corporation's unique "directed research program"**, Atlantic Resinfast Black RLW has been used on over 2 million yards in America's largest mills. As a proven product it is now available to the industry from convenient warehouse stocks. For applications requiring a "greener" shade of black with properties identical with Black RLW, we recommend Atlantic Resinfast Black LW.

Literature and Samples of Each are Available by Writing

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PASSAIC, NEW JERSEY

WORKS AND LABORATORIES: 10 KINGSLAND ROAD, NUTLEY, N. J.

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*PATENT APPLIED FOR

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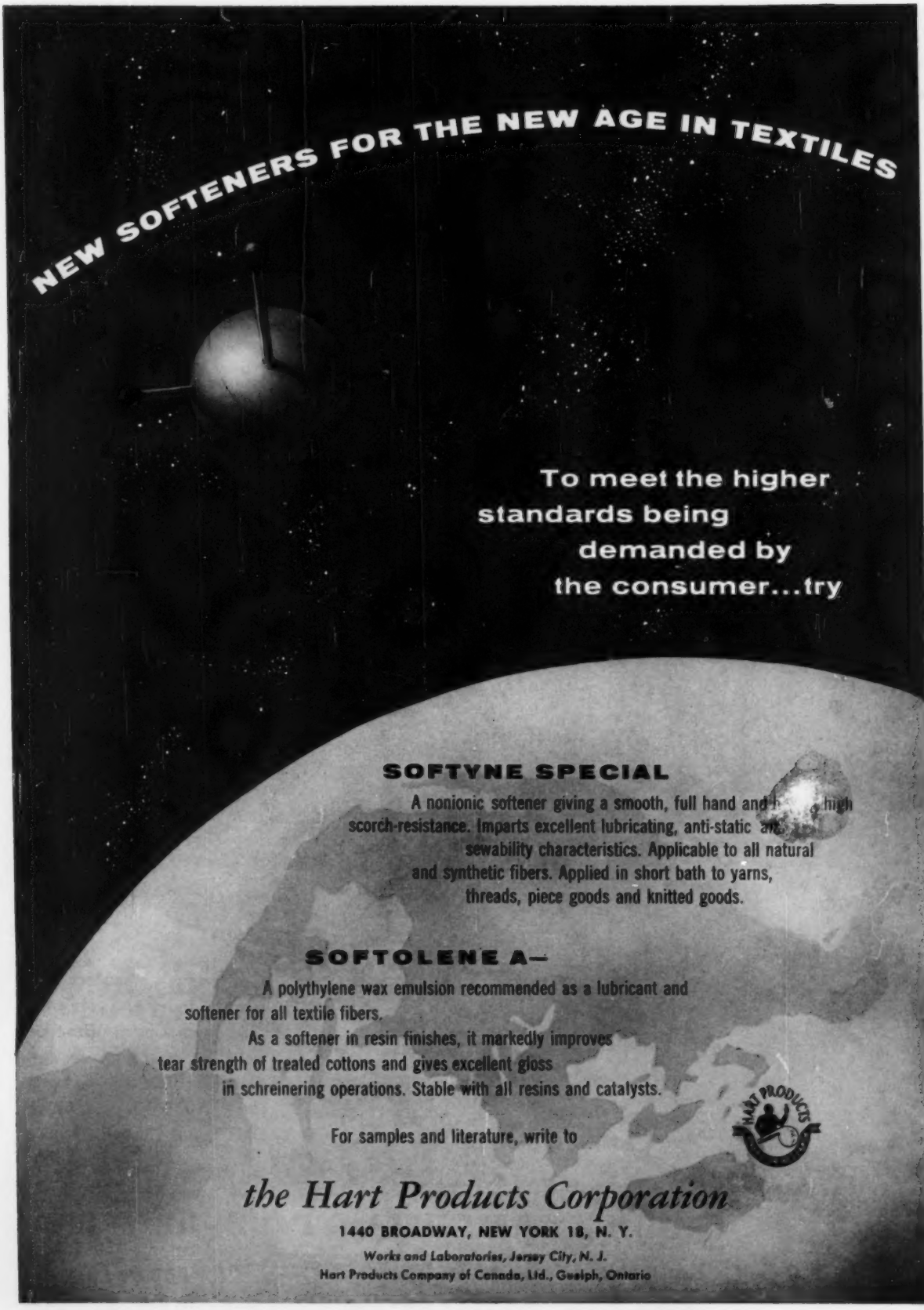
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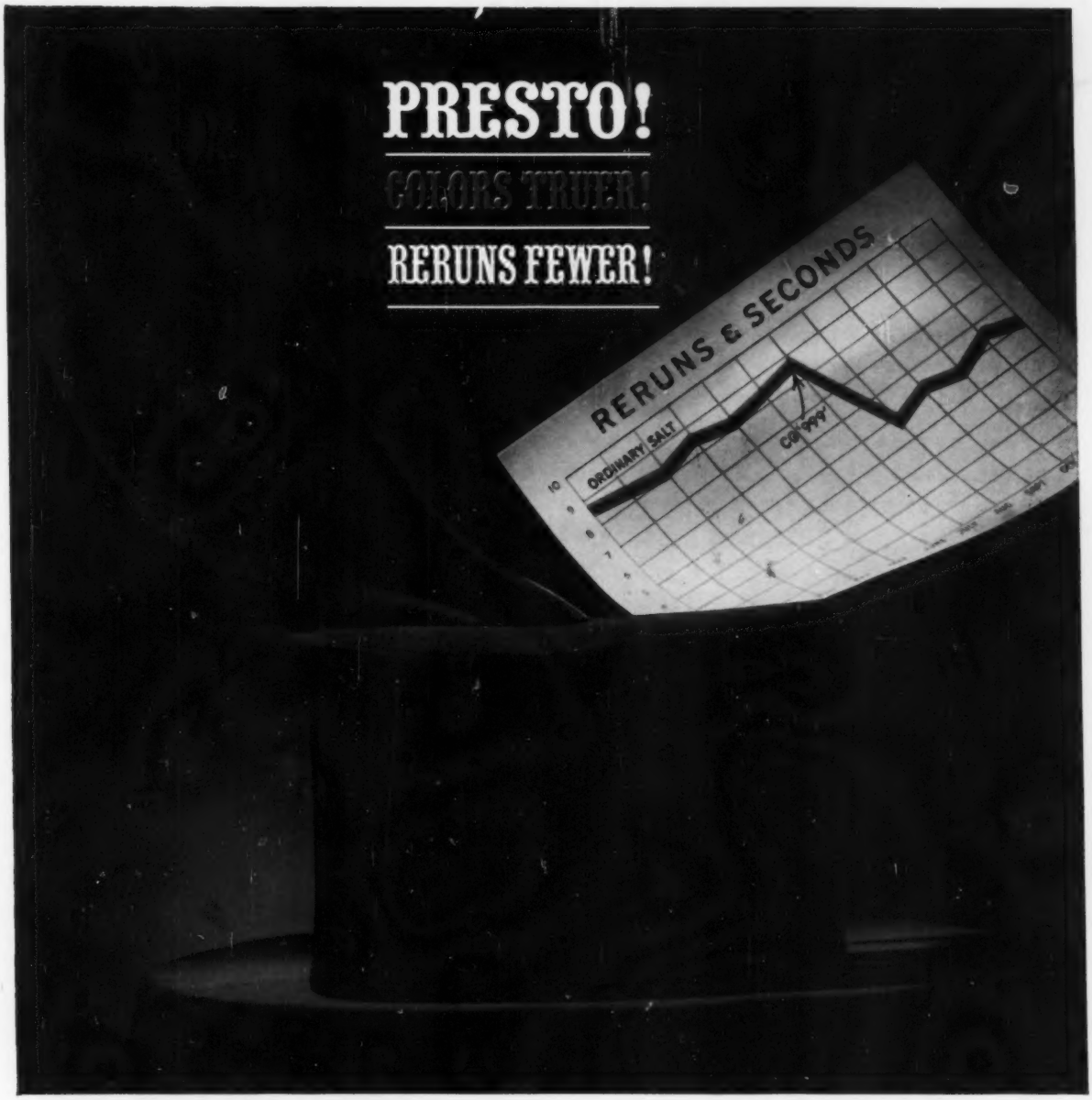

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It's not magic . . . but sometimes the results you get when you switch to high purity Morton Chemical Grade '999' Salt seem almost magicall Colors are truer . . . exactly as the manufacturer intended them to be. And reruns and seconds often drop 50%—as shown by actual records.

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ILMA Skein dyeing, Package dyeing, Beam dyeing, continuous Top and Tow dyeing machines

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Napping, Shearing, Rotary presses, Carpet shears, Teazling — both natural and metallic

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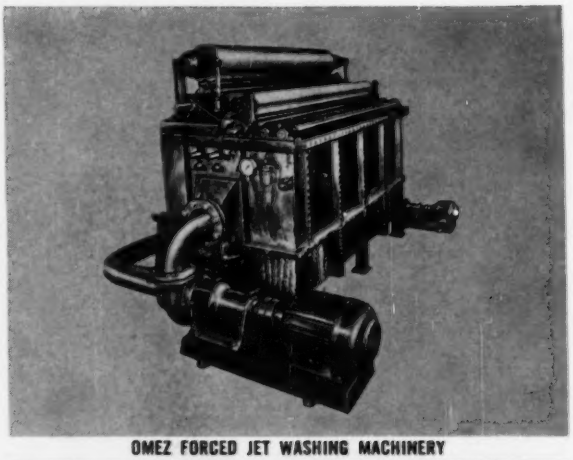
Erhardt & Leimer equipment can solve any problem regarding the guiding of open width fabrics, whether woven or knitted. This equipment has been successfully used in mills throughout the world for the last 50 years.



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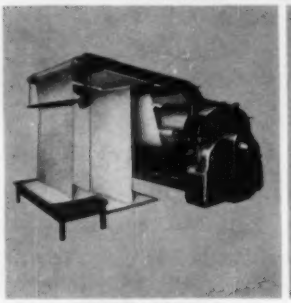
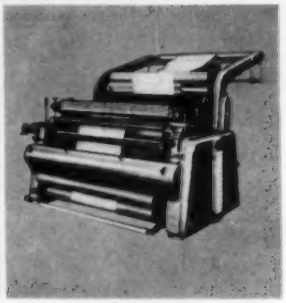


MARIO CROSTA NAPPING MACHINE



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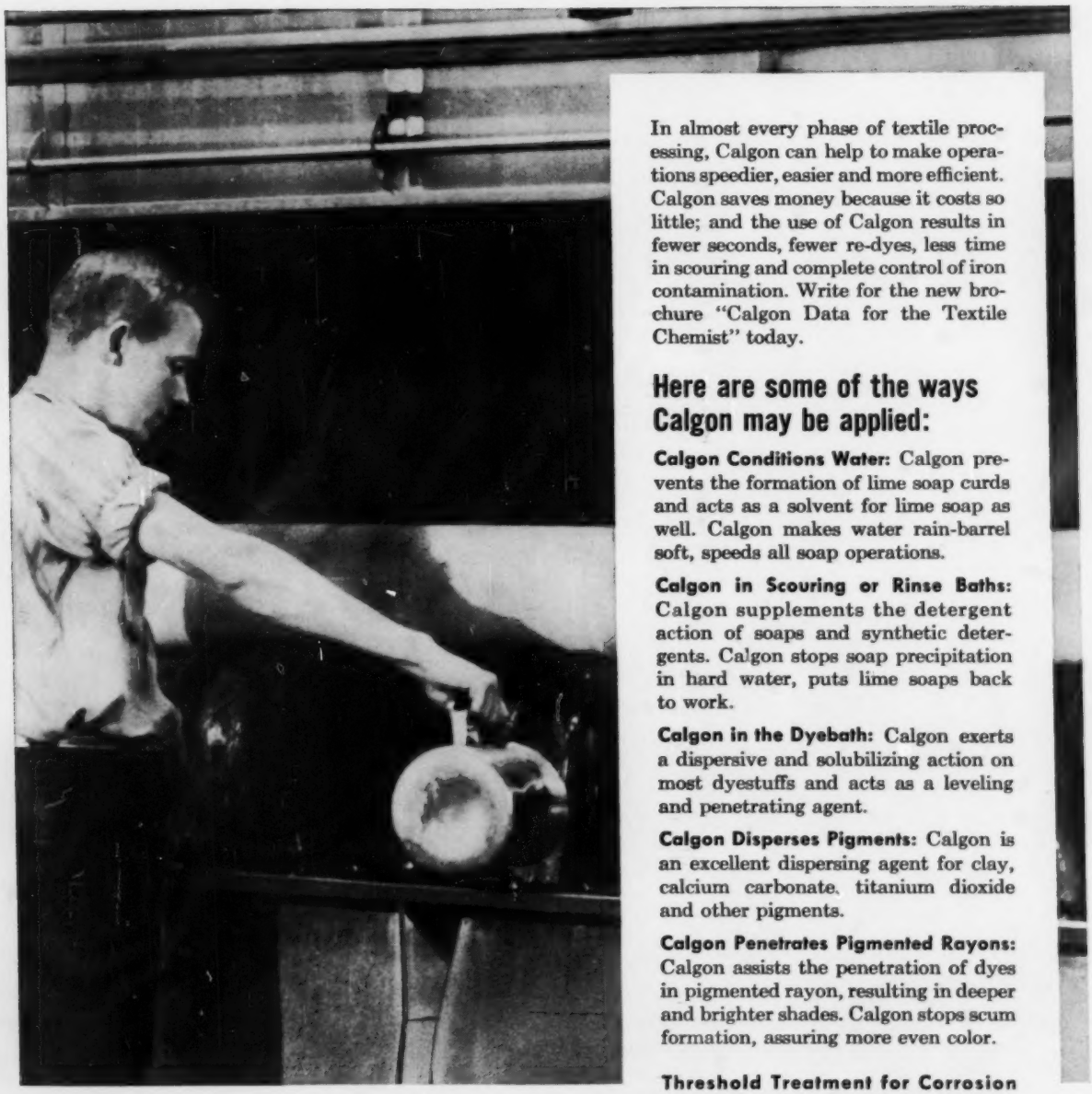

In almost every phase of textile processing, Calgon can help to make operations speedier, easier and more efficient. Calgon saves money because it costs so little; and the use of Calgon results in fewer seconds, fewer re-dyes, less time in scouring and complete control of iron contamination. Write for the new brochure "Calgon Data for the Textile Chemist" today.

Here are some of the ways Calgon may be applied:

Calgon Conditions Water: Calgon prevents the formation of lime soap curds and acts as a solvent for lime soap as well. Calgon makes water rain-barrel soft, speeds all soap operations.

Calgon in Scouring or Rinse Baths: Calgon supplements the detergent action of soaps and synthetic detergents. Calgon stops soap precipitation in hard water, puts lime soaps back to work.

Calgon in the Dyebath: Calgon exerts a dispersive and solubilizing action on most dyestuffs and acts as a leveling and penetrating agent.

Calgon Disperses Pigments: Calgon is an excellent dispersing agent for clay, calcium carbonate, titanium dioxide and other pigments.

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Progress in Textile Technology is moving with amazing speed! More wondrous things have happened to fibers and fabrics within the past twenty years than in the twenty centuries before! And, to provide increased practical value to new and improved textiles, the science of FINISHES and FINISHING maintains the whirlwind pace. Yes, the great triumvirate, of FIBERS, FABRICS and FINISHES, working together, will continue transforming today's fantasies into tomorrow's facts!

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. . . a group of resin finishes to improve hand, smoothness, fabric strength, and stability

Creamoyl®
. . . adds a high degree of softness and smoothness to fabrics of all fibers.

POLYEEN
. . . produces a wonderfully soft, resilient, hand in the heavily resinated fabrics.

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. . . enhances tufted fabrics of all kinds assures better pile, resiliency, and hand.

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. . . is a finish-additive that effectively inhibits growth of bacteria on fabrics.

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. . . produces a 'thirst' for moisture in the moisture-resistant man-made fabrics.

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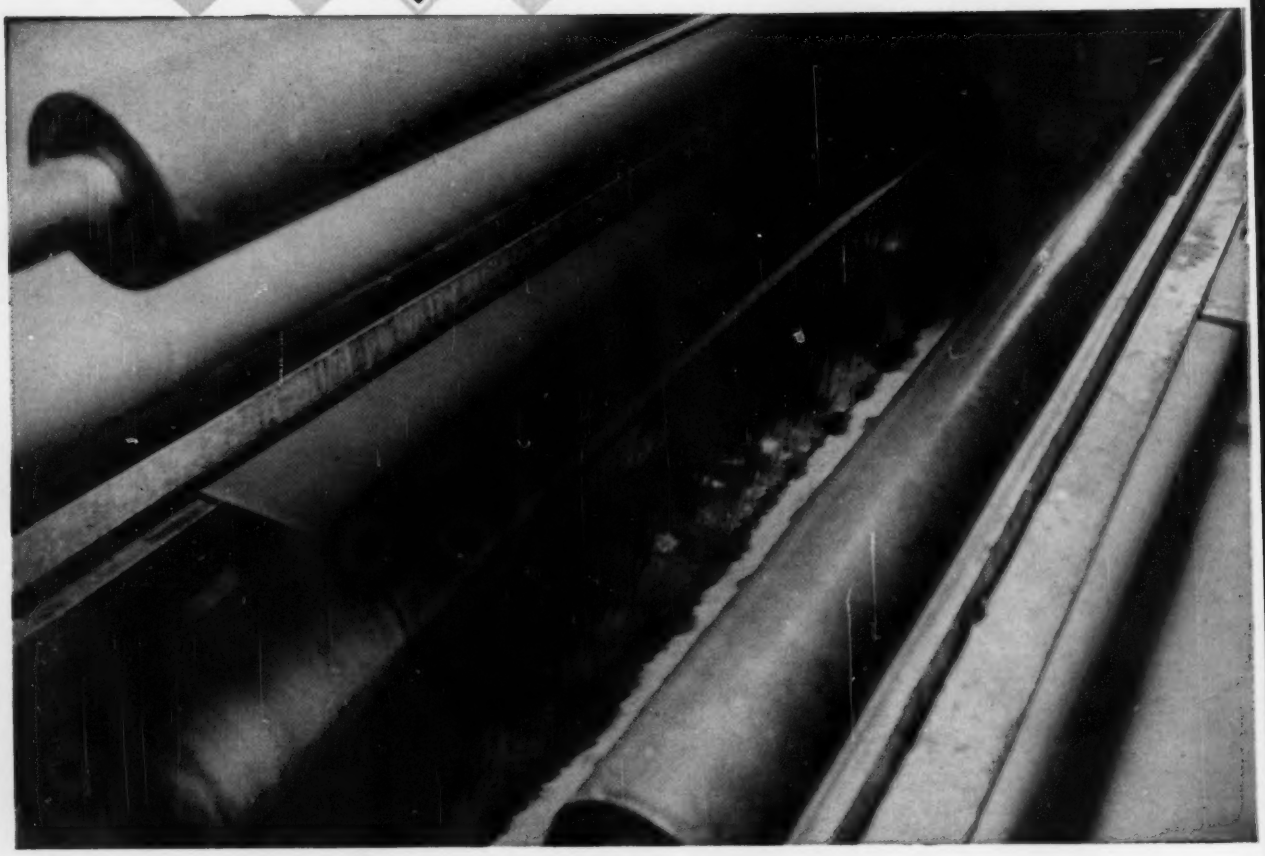

SURFONIC® products lead nine lives in the textile industry

Virtually every operation in the textile industry that utilizes water also uses surfactants . . . some 75 million pounds annually. Nine of the better-known applications are in: Kier Boiling, Open-Width Scouring, Bleaching, Mercerizing, Slashing, Desizing, Dyeing and Printing, Soaping Off, and Rewetting.

SURFONIC surface-active agents, which are adducts of ethylene oxide and nonyl phenol (N-series 10 to 300), improve diverse textile processes. These adducts are nonsubstantive to wool and will scour a greater poundage than anionic agents or soap, before exhaustion of the bath. Either SURFONIC N-95 or N-120 functions effectively with the soda ash solutions normally used in wool scouring. These products rapidly wet and emulsify the wool grease in degreasing operations, and are also used in kier boiling of cotton.

SURFONIC N-95 is recommended for scouring goods preparatory to dyeing, and removing knitting oils from woolens. By improving penetration of sulfuric acid into the fiber, SURFONIC N-95 becomes a useful wool-carbonizing assistant. It retains its wetting action even though a relatively concentrated solution of acid is used.

Jefferson surface-active agents extend from the completely water soluble-oil insoluble to the completely oil soluble-water insoluble. Lower numbered, non-water-soluble products may be used as foam reducing agents. SURFONIC N-40 may be sulfated to give water-soluble, light colored anionic compounds useful in household detergents. Higher numbered, water-soluble products are suited for elevated temperature operations, and are relatively high foamers. Other SURFONIC surface-active agents for specific applications can be made on request . . . let Jefferson help with your custom formulations.

FONIC®

SURFACE-ACTIVE AGENTS

SPECIFICATIONS

	N-10	N-20	N-40	N-60	N-95	N-120	N-150	N-200	N-300
Specific gravity, 20/20°C..... min.	0.960	1.004	1.020	1.037	1.057	1.069	1.058(30/4)	—	—
max.	0.995	1.007	1.030	1.044	1.064	1.071	1.071	—	—
Cloud point, ml. of H_2O or °C..... min.	8.5 ml.	15.5	30 ml.	68 ml.	52°C.[1]	50°C.[2]	63°C.[2]	72°C.[2]	—
max.	12.0 ml.	19.0	36 ml.	89 ml.	56°C.	54°C.	67°C.	73°C.	—
Color, Pt-Co scale ..... max.	500	300	200	200	100	200	200	200	200
Viscosity, 210°F. SUS ..... min.	43	47	51	57	67	74	88	—	150
max.	48	50	54	60	70	77	90	—	170
Water, wt.% ..... max.	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Odor at room temperature	Not objectionable								
Appearance	All products are clear and substantially free of suspended matter.								

(1) 1% aqueous (2) 1% in 10% brine

SELECT PROPERTIES

Flash point (open cup), °F.....	355	375	435	475	500	525	500	550	—
Weight, 20°C., lbs./gal.....	8.1	8.35	8.5	8.7	8.8	8.9	8.95	9.0	9.1
Foam height, 120°F., mm. initial, 0.1 wt.%	5	5	10	12	80	110	120	—	—
Wetting time, Draves, sec. 0.25%, 1.5 g. hook.....	—	—	12	6	3	7	17	—	—
Freezing point, °C.	—	—	—	<0	5	14	23	34	44

SHIPPING AND HANDLING

SURFONIC Surface-active Agents are available in coiled tank cars, tank wagons and 17E non-returnable steel drums of 430-480 pounds capacity, from our Port Neches plant or terminals throughout the country.

Handling and storage of these products is a straightforward operation. Storage tanks should be of carbon steel according to approved codes. Heating coils and insulation will be required to maintain the higher molecular weight products in the liquid state. Normal precautions to guard against excessive atmospheric moisture pick-up should be taken. Blueprint Drawing No. F-14-248-0, "Typical Carbon Steel Storage Arrangement," is available on request.

TECHNICAL INFORMATION

The information contained here is necessarily limited . . . for helpful detailed data and applications, ask for our "SURFONIC Technical Brochure" . . . Jefferson Chemical Company, Inc., 1121 Walker Avenue, P. O. Box 303, Houston 1, Texas.

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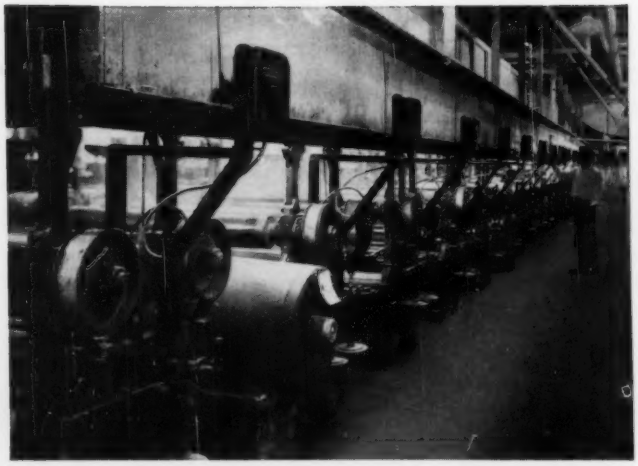
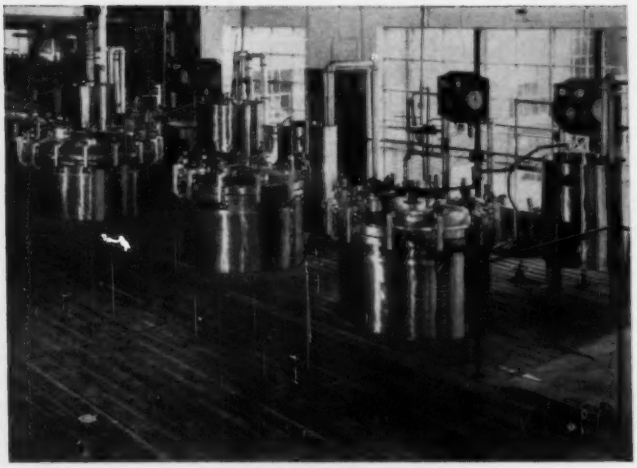
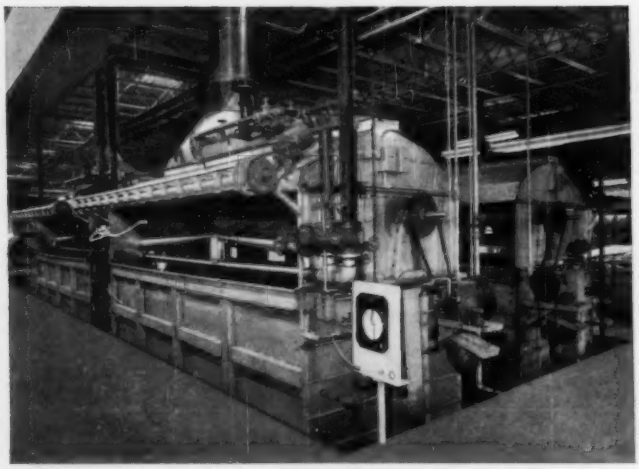


Dye Jig Operation



Package Dyeing



Piece Dyeing

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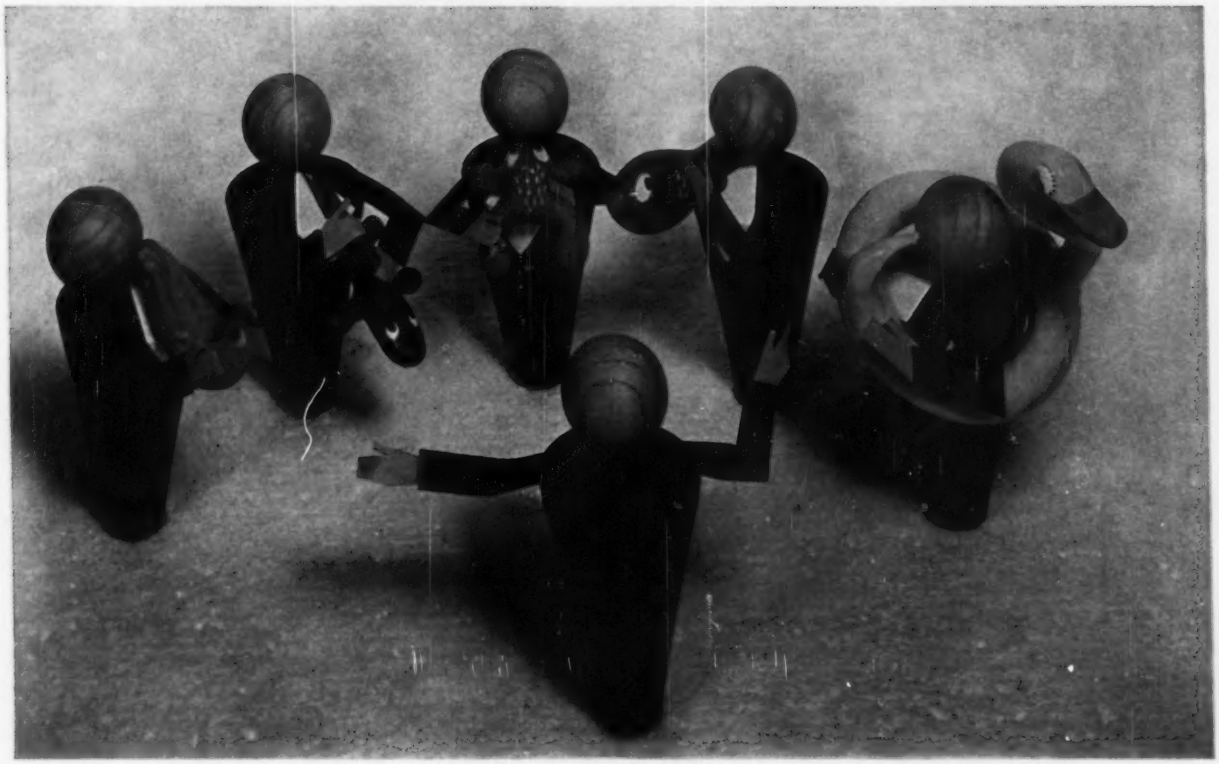

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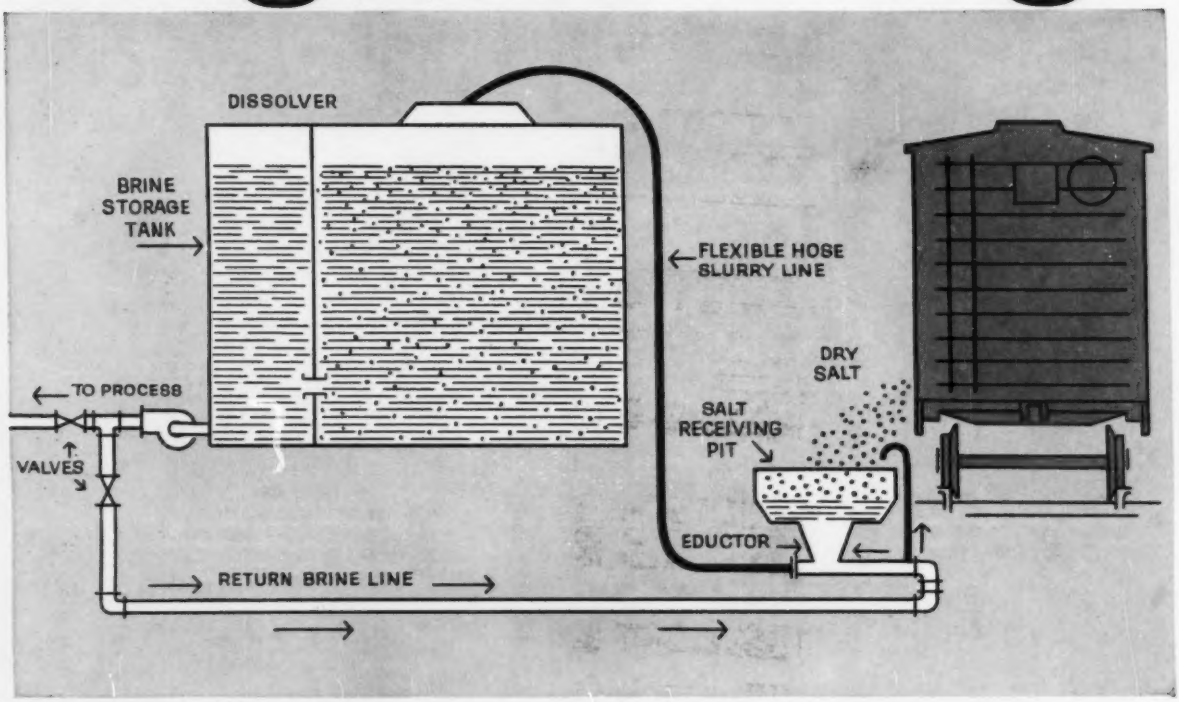
salt engineering



New hydraulic salt-handling system pays for itself in one year

A food-specialties manufacturer used to buy evaporated salt in bags. They used a batch mixing process to combine the salt with other ingredients to produce a patented product. Lugging the salt from boxcar to the plant, storing it, then dumping into mixing vats was time-consuming, expensive and took up valuable warehouse space.

In an effort to speed up and economize on the operation, this manufacturer called in an International Salt Company Technical Service Representative. He recommended simplifying the mixing process by installing a Storage Brinomat* Dissolver outside the plant. The Dissolver automatically supplies sparkling, pure brine to the process *continuously*.

He also recommended buying less expensive bulk salt by the carload and delivering it to the Dissolver by a hydraulic handling system. In this system, designed by International's Technical Service Department (see diagram above), a power scoop pushes salt from the cars into a receiving hopper feeding an eductor system. There the salt is mixed with brine from the Dissolver and educted as a slurry of saturated brine and undissolved salt to the Dissolver.

Efficiency and economy have been remarkable. After one year of operation the plant manager informed International that the entire system had already paid for itself!

Hydraulic handling systems can be designed to unload, move and store any amount and type of salt—rock or evaporated.

With over fifty years' experience, International is uniquely equipped to offer assistance on all phases of salt or brine usage. Even if you're satisfied with your present operation, perhaps it *could* be improved. Why not review your operation with an International Technical Service Representative? Salt is his business. Write International Salt Company, Clarks Summit, Pa., or call our nearest district office.

*Registered T.M. International Salt Company

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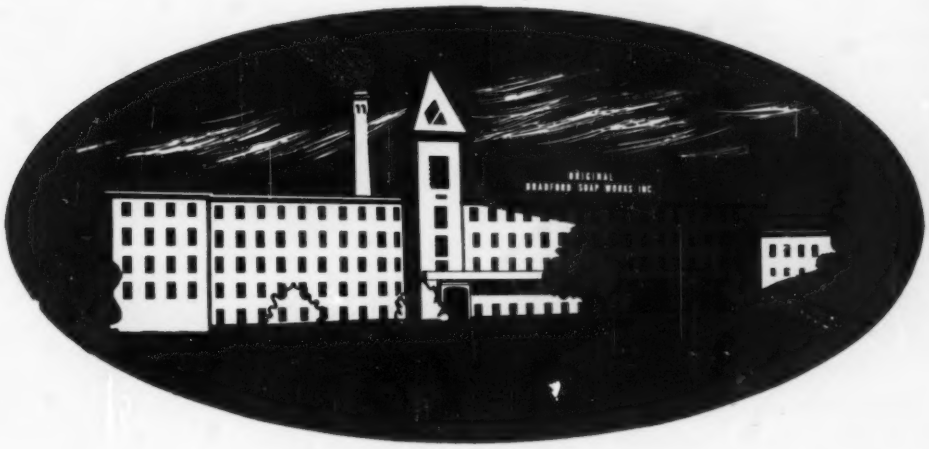
"A STEP AHEAD IN SALT TECHNOLOGY"

An extension of your own company



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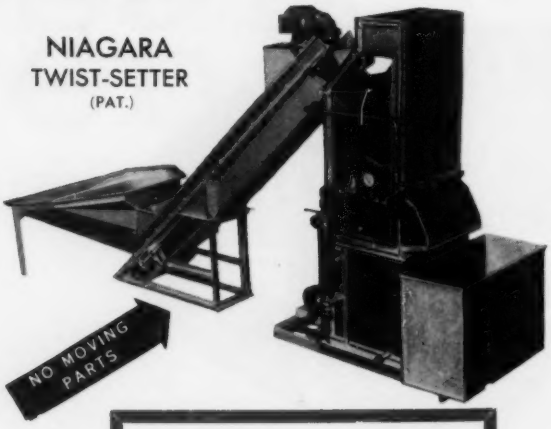
TWIST-SETTER
(PAT.)



The NIAGARA TWIST SETTER, having no moving parts inside the machine, has practically no upkeep cost. Can condition 3,000 pounds per hour of filling on bobbins. Minimum space required.

SEYCO WARP
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The SEYCO WARP LUBRICATOR mounted on the slasher frame gives a uniform surface application of oil or wax lubricants which materially improve weaving efficiency.

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SEYCO Warp Sizes—Compounds carefully blended to meet requirements for softening, lubrication, adhesion; adding where needed antiseptics, anti-foams, anti-sticking agents.

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SEYCO-BRITE—Kier and bleaching assistants, for production of maximum whiteness and absorbency.

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We would like to test METAFOS. Please send us a working sample (underscore your choice: bead powder, or granular), with instructions. (If lowe P_2O_5 content or higher pH is wanted, ask fo QUADRAFOS, companion product to METAFOS Check here ☐.)

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CARBIDE chemicals are available in 55-gallon drums in carload or LCL lots, in tank cars, tank wagons, compartment tank cars, and compartment tank wagons. And, when you buy from CARBIDE, you're assured of quick delivery from warehouses, plants, and bulk stations located across the country. Talk to your CARBIDE Technical Representative about these services. Or, write Department HT, Union Carbide Chemicals Company, Division of Union Carbide Corporation, 270 Park Avenue, New York 17, N. Y,

UNION CARBIDE CHEMICALS COMPANY

UNION CARBIDE

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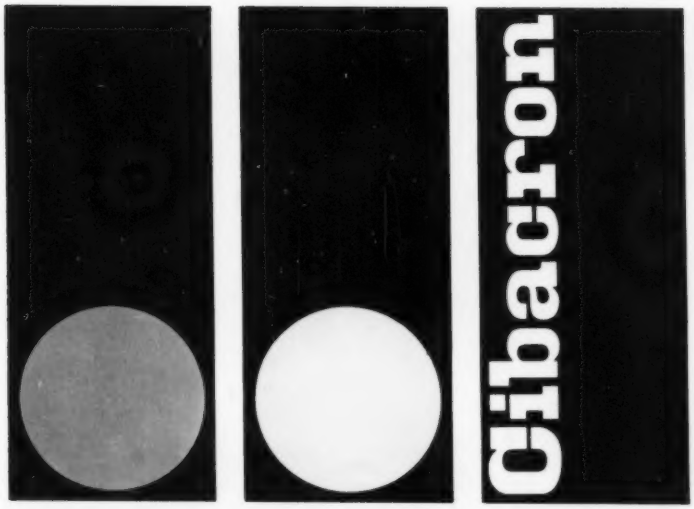
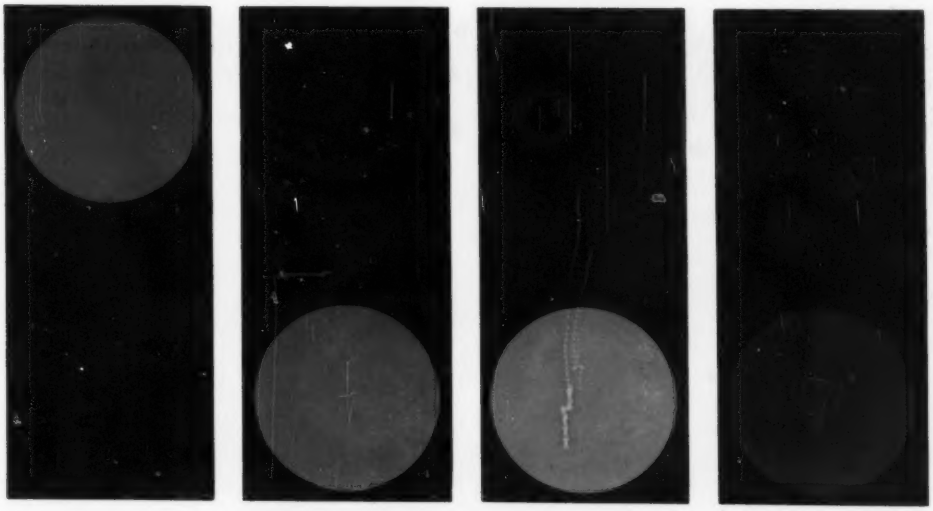
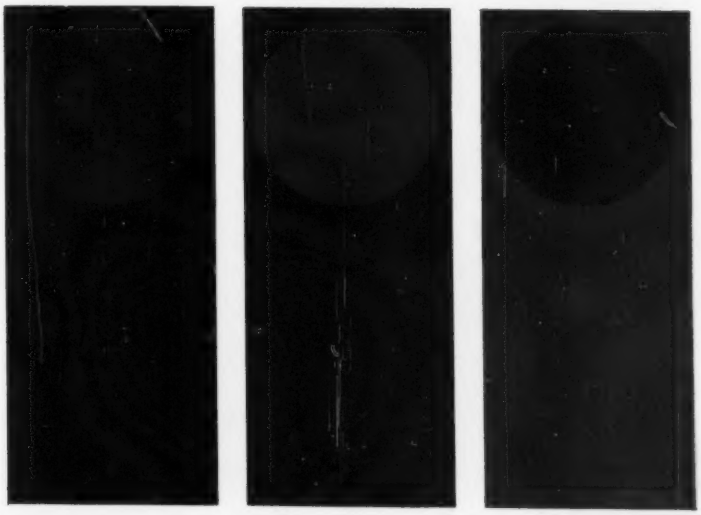


THE UNIQUE BRILLIANCE, FASTNESS AND PROVEN VERSATILITY OF CIBACRON® DYES for printing and dyeing on all cellulosic fibers have won immediate recognition and a permanent place for these original fiber-reactive dyes. An almost unlimited range of brilliant shades can be matched in clean, sharp prints and dyeings. Color yield is high, and high-speed equipment can be used. In bringing a new kind of beauty to modern printing and dyeing, the CIBACRON Dyes do not require complicated or expensive application methods but rather adapt readily to standard print shop and dyehouse procedures. On wool, too, the CIBACRON Dyes can be used to produce a combination of brilliance and fastness while retaining the fullness and softness of the wool fiber by the simple addition of NEOVADINE®AN to conventional wool dyeing formulae.



C I B A



WHEN DO YOU USE these two important CIBA chemical specialties which are so much in demand?

neovadine® AN

A multi-purpose non-ionic agent for dyeing and printing of polyamide and other fibers

• A non-ionic agent for dyeing, leveling, and penetration of wool and nylon and polyamide, especially under neutral conditions. • Leveling of tippy, light-affected and different qualities of wool. • Dyeing of Cibacron® (reactive) dyes. • Washing of naphtol dyeings and prints on cellulosic materials (whiter whites). • Stripping of fast color from almost every type of fiber.

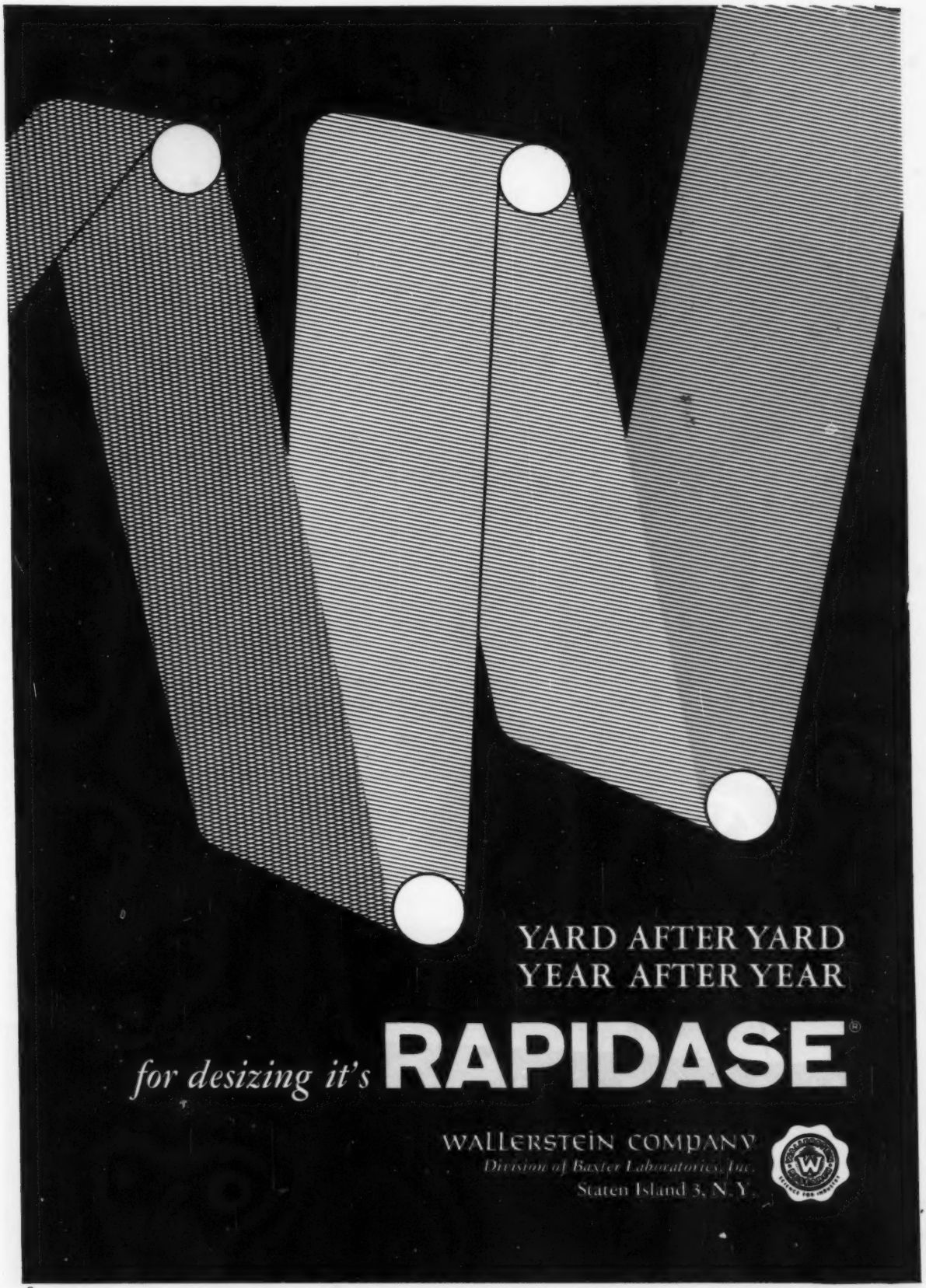
univadine® W

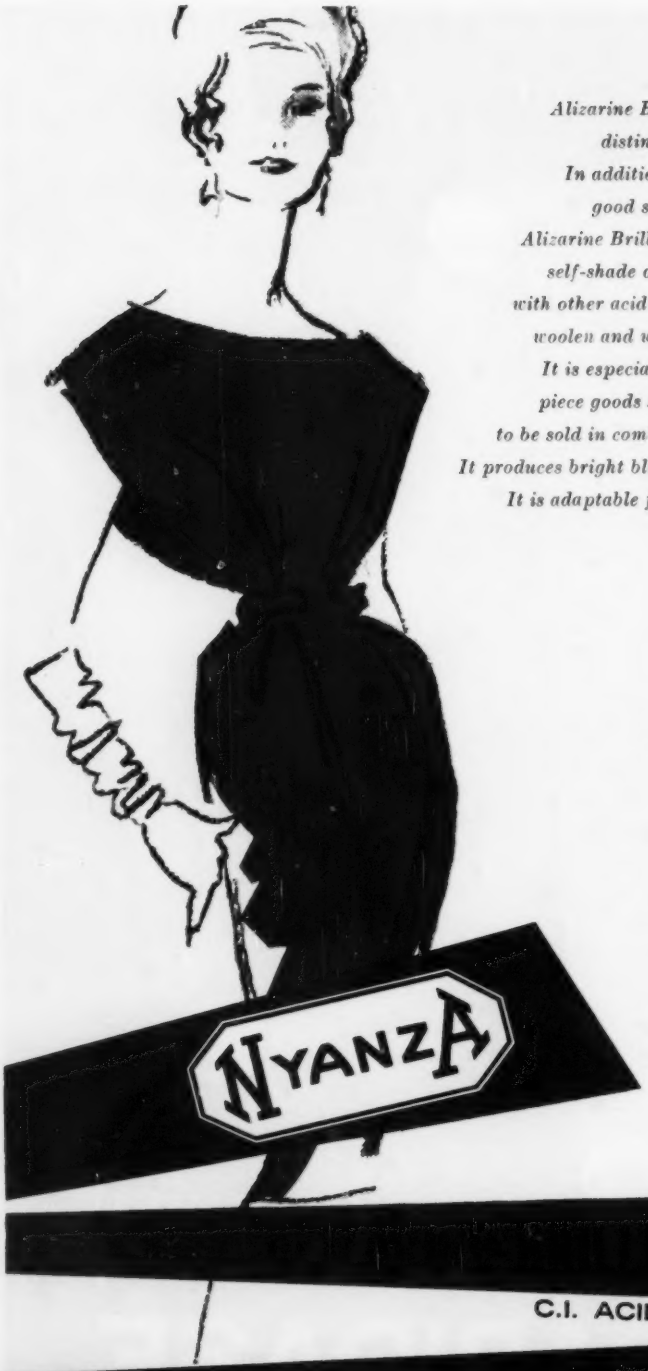
A mutli-purpose non-ionic leveling agent for the dyeing of wool and polyamide fibers with acid milling dyes

• For shading with acid milling types. • For level dyeing of metalized (Neolan®) types. • For chrome dyes before chroming. • For Cibalan® brilliant dyes. • For dyeing nylon, regular and stretch types. • For level dyeing at all stages of processing: top, yarn, carpet yarns, piece and knit goods. • For level dyeing of chlorinated wool.

For further information on both of these thoroughly researched CIBA products, contact your CIBA representative, or write CIBA Company Incorporated, Chemical Specialties Division, Fair Lawn, New Jersey

C I B A


YARD AFTER YARD
YEAR AFTER YEAR
for desizing it's RAPIDASE®
WALLERSTEIN COMPANY
Division of Baxter Laboratories, Inc.
Staten Island 3, N. Y.



Alizarine Brilliant Blue R Conc is an acid dyestuff distinguished by its extreme brightness. In addition to its brightness this color possesses good solubility and good fastness to light. Alizarine Brilliant Blue R Conc is well suited for use as a self-shade or for bright mode shades in combination with other acid colors. It is suitable for dyeing all classes of woolen and worsted fabrics, carpet yarns, felt hats, etc. It is especially well adapted for dyeing bright woolen piece goods shades which will be used in making skirts to be sold in combination with cashmere or wool-blend sweaters. It produces bright blue shades on Nylon of good light and washfastness. It is adaptable for direct print styles on wool, silk and Nylon.

PROPERTIES

LIGHT FASTNESS:	
Pastel Shades	4
Medium Shades	4-5
Heavy Shades	5
WATER SPOTTING	5
SEA WATER	4-5
PERSPIRATION:	
Acid	4
Alkaline	3-4
CARBONIZING	4
DECATIZING	5
BLEACHING	3
HOT PRESSING:	
Dry	3
Wet	5
CROCKING:	
Dry	5
Wet	5
DISCHARGEABILITY	2

C.I. ACID BLUE 67

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DIVISION OF TEXTILE ANILINE AND CHEMICAL COMPANY

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BECCO

H_2O_2

A glance at the map is proof that **only Becco supplies Hydrogen Peroxide from so many distribution points.** The practical result is that you can tie up less money in peroxide inventory—without fear of running out. Just make Becco your "warehouse" for H_2O_2 and other peroxygens.

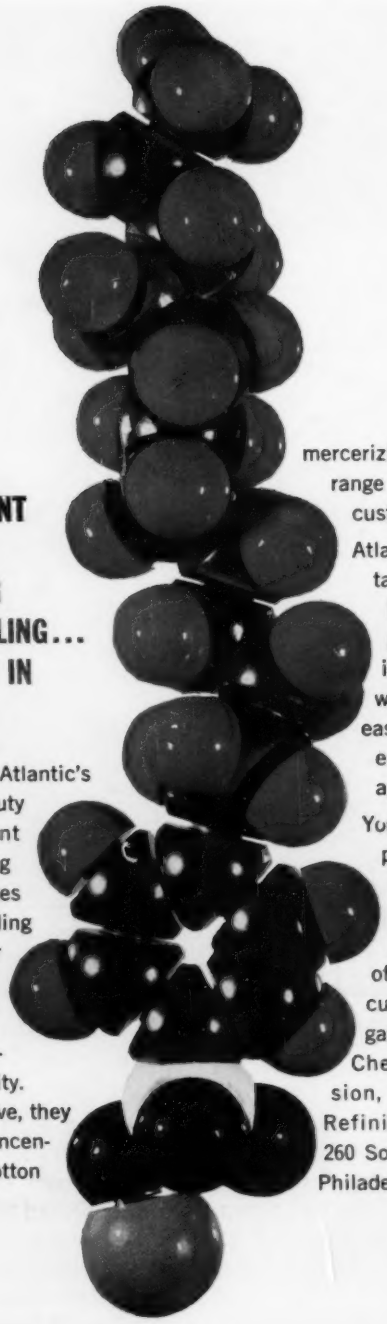
If you buy in drums, you'll get delivery within 24-hours. Bulk shipments, too, are within one-day delivery, if your plant is located in a 500-mile radius of any major Becco distribution point (red dots on the map). But the fact is, whether you are in northernmost Maine or southern-most California—or **anywhere** in between—Becco deliveries are **prompt.**

For the location of your nearest Becco distribution point, write Department ADR-61-20.

BECCO Hydrogen Peroxide

Putting Ideas to Work

FOOD MACHINERY AND CHEMICAL CORPORATION
Becco Chemical Division
General Sales Offices:
161 EAST 42nd STREET, NEW YORK 17, N.Y.



ATLANTIC ULTRAWETS® GIVE YOUR FORMULATIONS CONSISTENT QUALITY AND HELP CUT COSTS IN WOOL BLEACHING • SOAPING OFF • CARBONIZING • DYE LEVELING... ANY SURFACTANT APPLICATION IN WET PROCESSING OF TEXTILES

A formulation compounded from one of Atlantic's full range of Ultrawets does double duty at the mill by maintaining consistent quality while helping to cut processing costs. These superior alkyl aryl sulfonates are surface-active agents with outstanding qualities for wetting, dye penetration or leveling and detergent properties.

Atlantic Ultrawets, with unusually low unsulfonated oil content, provide remarkable cleaning and wetting ability. In concentrations as low as 0.05% active, they are ideal for soaping off wools. In concentrations as low as 0.25% active for cotton mercerizing. Ultrawets are produced in an ideal range of molecular weights to meet your customer's individual problem.

Atlantic Ultrawets offer additional advantages. They are not adversely affected by variations in water quality, remove grease quickly and efficiently. Scouring is possible at lower temperatures. Less water is needed. They are easy to handle, easy to store. And their versatility means economical use in a wide variety of applications.

You are invited to consult Atlantic's experienced sales engineers who are graduate chemists or chemical engineers especially trained in formulations employing any of Atlantic's great variety of Ultrawets. Put this technical and cost-cutting know-how to work without obligation by writing Chemicals Division, The Atlantic Refining Company, 260 South Broad St., Philadelphia 1, Pa.

ATLANTIC
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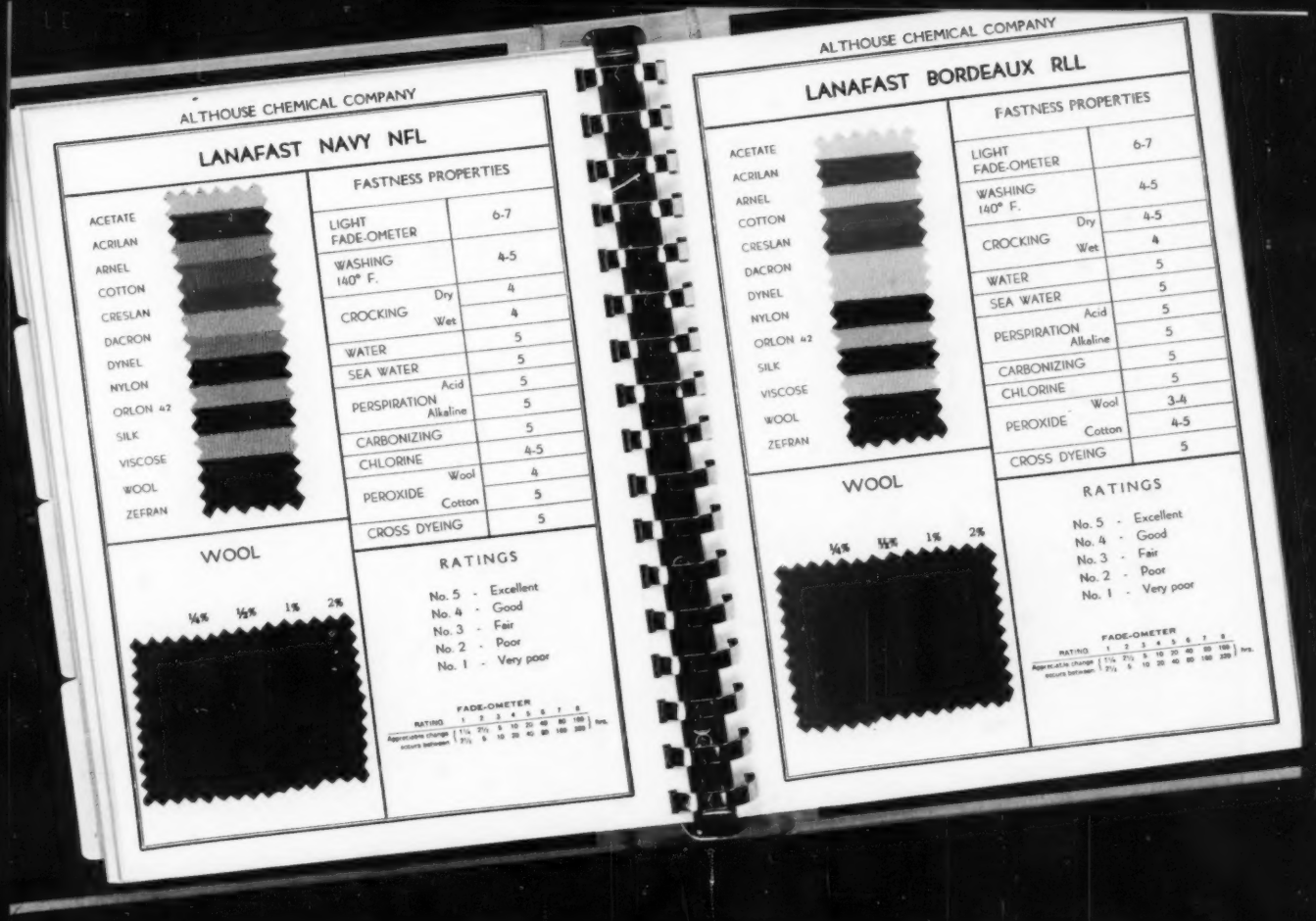
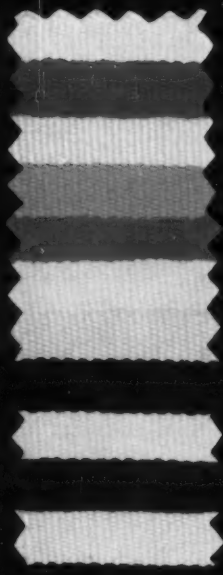
In Canada: Naugatuck Chemicals
Division of Dominion Rubber Company, Ltd.

In Europe: Atlantic Chemicals SAB, Antwerp, Belgium

In South America: Atlantic Refining Company of Brazil, Rio de Janeiro



Althouse Customer Service solves problems in dyeing blends



. . . Lanafast neutral premetallized dyes offer special advantages for wool, nylon, zefran, acrilan, creslan

Today Althouse gives you vital two-way help in solving problems in dyeing blends:

Althouse Customer Service brings you up-to-the-minute laboratory or in-plant service.

Althouse Lanafast Dyes give you consistent shades and working qualities, shorter dyeing time, maximum light fastness and color fastness.

Check the cost-saving advantages of this unbeatable combination today.

ALTHOUSE Chemical Company
Reading, Pa.
a division of Crompton and Knowles Corporation
specialists in colorfast dyes

Lanafast Orange RDL

Printed in U.S.A.

how CMC warp size helps cut dye resists

You'll find that Hercules® CMC quickly and completely dissolves out when grey goods are desized. Result: dye resists that come from residual warp size are eliminated. CMC Warp Size thus plays an important role in helping to produce first quality cloth and avoid rejects. For information and technical service on the properties of CMC Warp Size, write to Hercules.

Cellulose and Protein Products Department

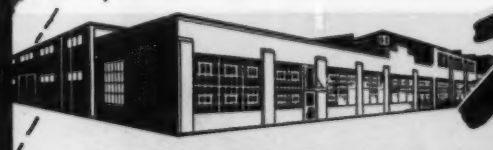
HERCULES POWDER COMPANY
INCORPORATED

Hercules Tower, 910 Market Street, Wilmington 99, Delaware

VC61-5

The EYES Have It!

Where dyeing is involved, you can believe your eyes only when the samples are compared thru scientifically controlled procedures. Because Berkshire is ready and eager to prove that its products can fill your special needs, it will gladly prepare for you a brochure of comparative test samples, on *any* designated fabrics, under *any* specified conditions.



Berkshire COLOR & CHEMICAL C

WHY IT PAYS YOU TO DEAL WITH BERKSHIRE—

- Specialization — in Dyestuffs, Exclusively
- Completely Unified Manufacturing Plant — from Intermediate to Finished Product
- Ultra-Modern Production, Research and Testing Equipment
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- Successful Product Pioneering
- Individualized Problem Solving Service
- Lightning Delivery—from 4 Strategically Located Warehouses
- Highly Satisfied Customers — as Evidenced by Steadily Climbing Sales Curve

Organized to know your dyeing problem — Equipped to solve them!

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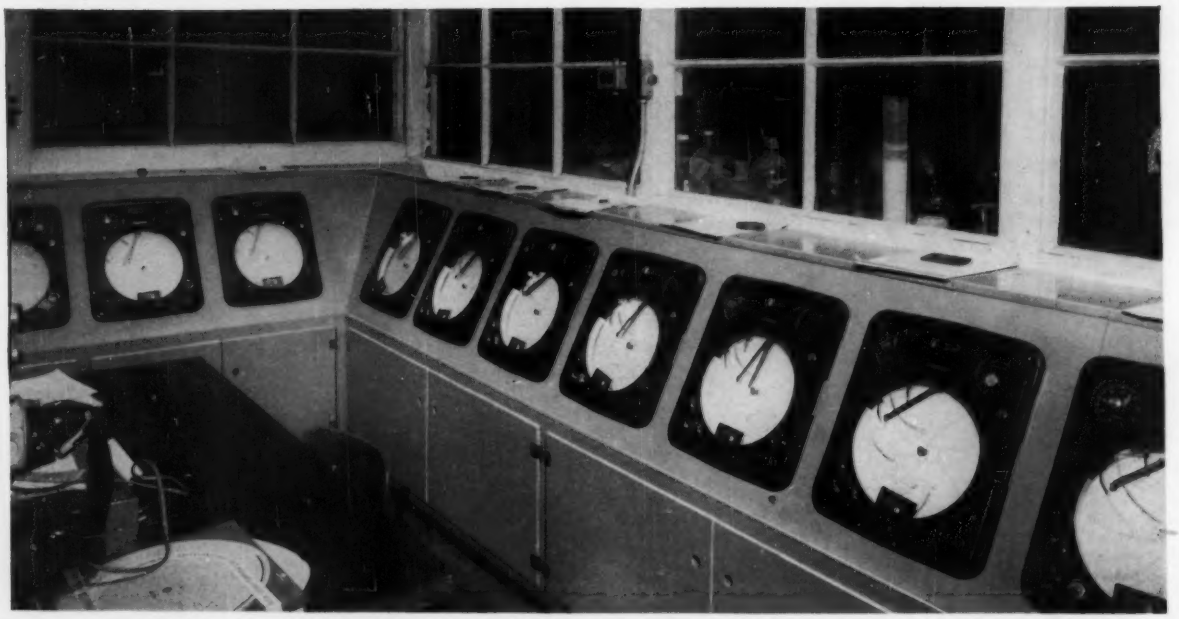
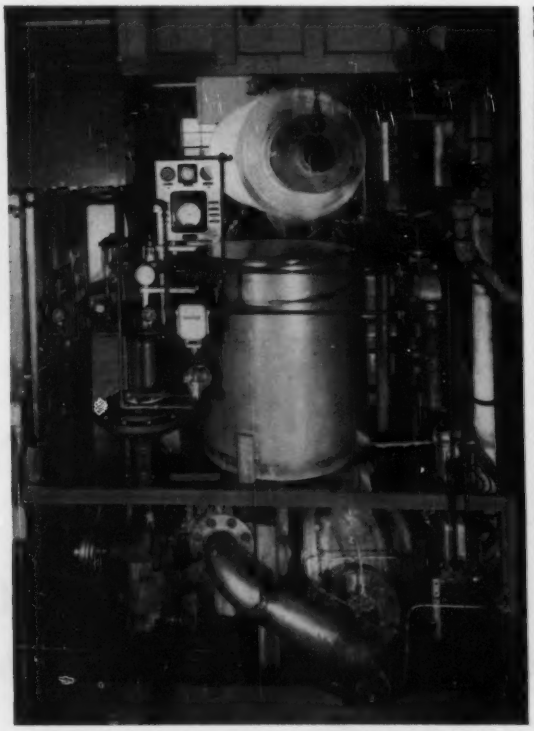
Progressive Mills Depend on

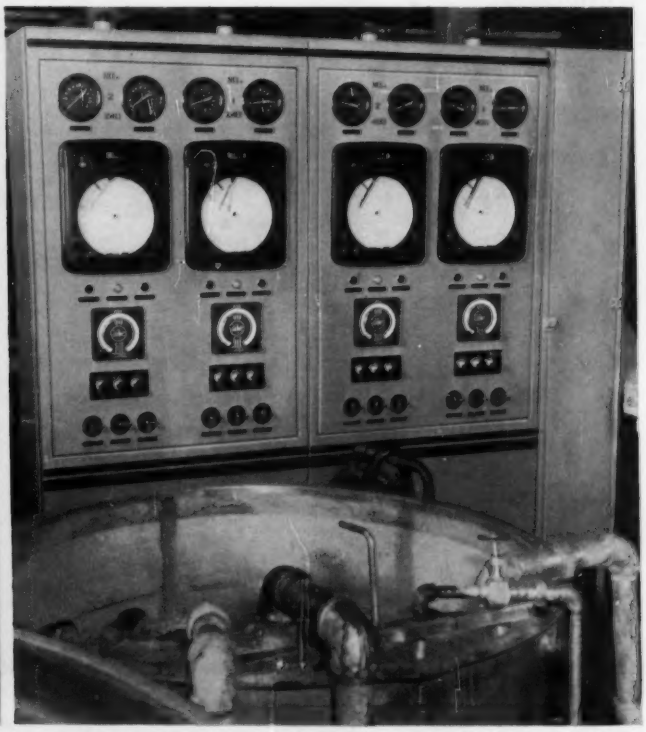


Foxboro Remote CycleLog* Controllers regulate temperature schedules in knit goods dyeing operation at William Carter Co., Barnesville, Ga. From this centralized location, dyer and assistant easily handle more than 15 complicated time-temperature schedules simultaneously.

*Reg. U.S. Pat. Off.



Foxboro At-The-Machine System for complete control of high temperature dyeing machine. Proper temperature schedules, flow and flow reversal rates are assured in synthetic cloth dyeing at Kenyon Piece Dye Works, Kenyon, R. I.



Foxboro Cabinet Control Systems. Shown here are 4 of 15 identical control systems regulating dyeing schedules in different makes of package dyeing machines at a large southern mill.

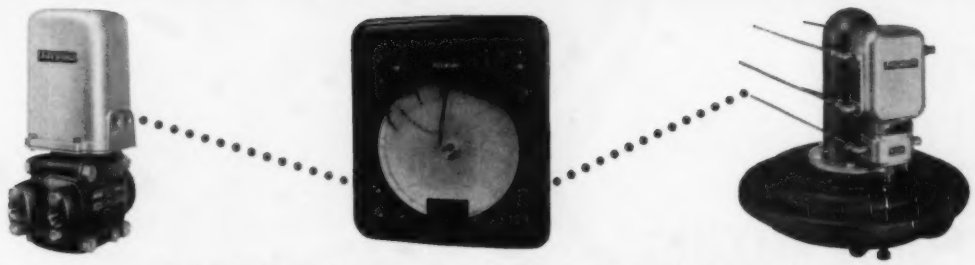
COMPLETE Dye Control Systems

. . . engineered by Foxboro

More and more modern mills are finding that consistent uniformity is assured economically in *any* dyeing operation with a Foxboro-Engineered Control System. These advanced instrument systems are *complete* . . . perfectly matched to the machines they control. They're available for every type of dyeing: raw stock, yarn, synthetics, and others. There's no guesswork. Every step in the most complicated flow or temperature schedule can be precisely reproduced by simple knob settings, giving you uniform results, every time. The installations shown here, are typical of hundreds of Foxboro Engineered Cabinet Control Systems. Depend on them for *better* control of every dyeing operation in your mill.

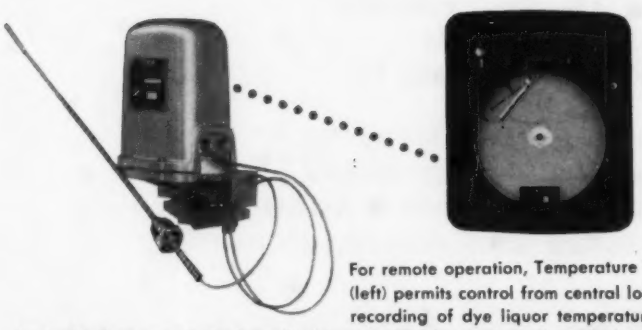
Write for Data Sheets on Control for your type of dyeing operation. The Foxboro Company, 2912 Norfolk Street, Foxboro, Mass., U.S.A.

FOR AUTOMATIC CONTROL OF FLOW AND PRESSURE . . .



By combining flow and flow reversal control with overriding pressure control, a Foxboro system gives the precise flow required by the dyer, plus positive protection for beams, to prevent blowing. Type 13A d/p Cell Flow Transmitter (left), measures dye liquor flow, and transmits it to Timer-Set Control Station (center), where actual flow rates are recorded. Operator merely sets desired rates . . . control action maintains exact rate and reverses flow automatically. Control setting is transmitted to valve-mounted Model 59 Flow Controller (right).

FOR AUTOMATIC CONTROL OF TEMPERATURE CYCLES . . .



For remote operation, Temperature Transmitter (left) permits control from central location, and recording of dye liquor temperature on same chart with flow record. Foxboro CycleLog (right), the camless, time-schedule controller, fills all normal dyeing requirements. Each step of individual schedules set by simple adjustments of knobs . . . CycleLog automatically carries out entire dyeing schedule.

FOXBORO
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INSTRUMENTATION FOR TEXTILE PROCESS CONTROL

INTRODUCING...

a major break-through in VAT-DYE PACKAGING

THE AGITATOR DRUM WITH THE BUILT-IN PADDLE!

for UNIFORM MIXING

YOUR BEST BUY IS *Mayrat* DYE in the AGITATOR DRUM

ADVANTAGES:

- instant agitation!
- drum never opened!
- quantity desired by opening and closing valve!
- clean and fast!
- easier handling!

ELIMINATES:

- dipping and dripping!
- paddling — specking!
- possible contamination due to opening and closing drum!

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The only finish that gives your fabric all these properties

SYL-MER®—made with Dow Corning Silicones—gives fabric a combination of properties unmatched by any other single textile finish:

Durable water repellency
Luxurious hand
Resistance to water-borne stains
More wrinkle resistance
Better tear strength
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Abrasion resistance

Whatever your fabric, Syl-mer will improve it. There's a Syl-mer finish for every fiber and fabric.

SEND SAMPLE TODAY FOR **FREE TREATMENT** WITH SYL-MER

Be sure fabric is prepared for finishing, i.e., free of sizing, wetting agents or dyeing assistants. Attach sample to coupon and send to us **in Greensboro.** Treated and untreated samples will be returned to you promptly.

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Dow Corning Corporation
2910 Patterson Street
Greensboro, North Carolina

Gentlemen:

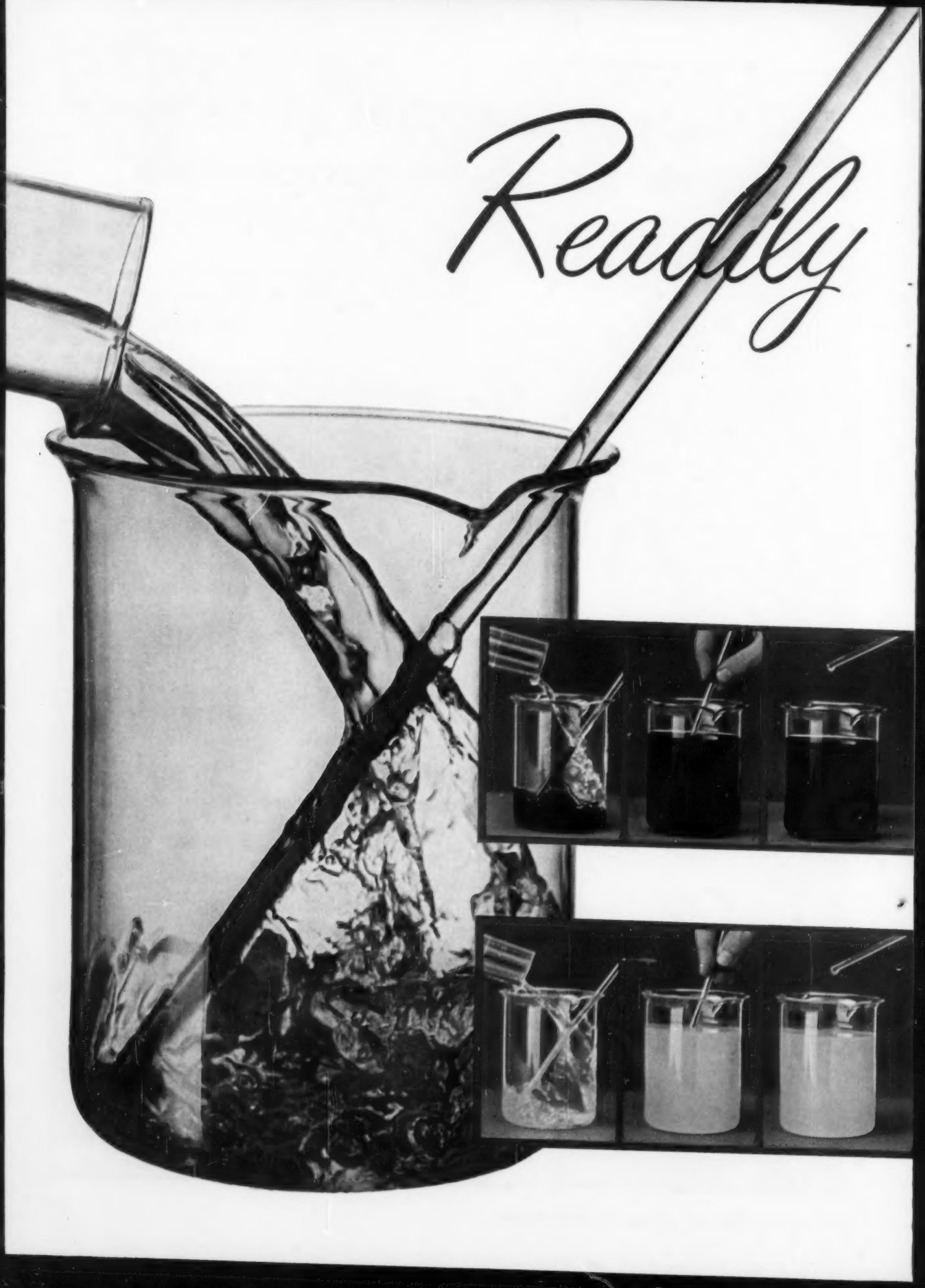
I have enclosed a sample (½ to 1 yard) of our fabric quality no. ..... for your Syl-mer treatment. Our finishing method is ☐ padding ☐ exhausting.

Fiber content of this sample is .....

Name ..... Title .....

Company ..... Address .....

City ..... Zone ..... State .....


Readily

Redispersible!

another important reason to specify

CARBANTHRENE® VAT DYES

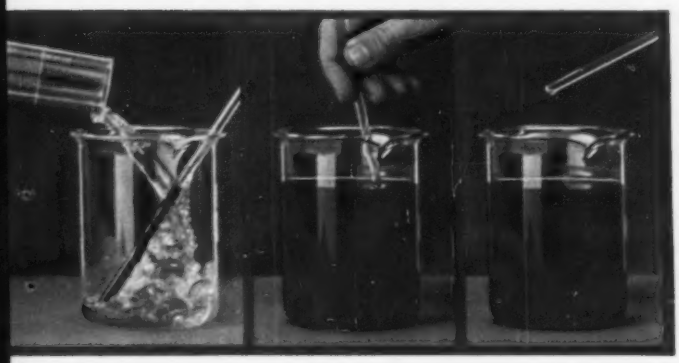
Within seconds, dried particles of National Aniline's Carbanthrene Vat Dyes redisperse in water at room temperature.

The same rapid redispersion takes place in stored drums . . . in your pad box . . . in package dyeing machines. As a result . . .

- piece goods are dyed clean and speck-free . . .
- there are no agglomerates to filter out on package sides . . .
- dye waste, spoiled goods and need to re-dye are minimized.

Redispersibility is one more working advantage developed through our continuing quality-improvement program. It's another big reason why uniform, fine-particle Carbanthrene Vat Dyes are truly second to none.

Ask a National Aniline representative for samples of the colors you use regularly.



Double pastes of Carbanthrene Blue BCF, Red FBB and Yellow PG were dried on stirring rods. When tap-water was poured over them, all three rods were clean in a matter of seconds. Almost immediately, the dried pastes had completely redispersed.

NATIONAL ANILINE DIVISION

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For yarn size determinations and related control operations:

METTLER multi-purpose balances:

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grams and deniers
cotton number
Tex number

Type H23C1600/13 calibrated on a multiple optical scale in
cotton number
grains

For basic research in the laboratory:

METTLER analytical balances:

Type H 15, standard, capacity: 160 g
precision: ±0.03 mg

Type H 16, semi-micro, capacity: 80 g
precision: ±0.01 mg

For very rapid and convenient batch weighings and for general purpose work in the laboratory:

METTLER precision scales, type K.

Equipped with a wide-range taring system, which permits easy taring of containers. Very wide optical range; built-in weights; for extra capacity; magnetic damping for fast operation; pan on top for ease in use.

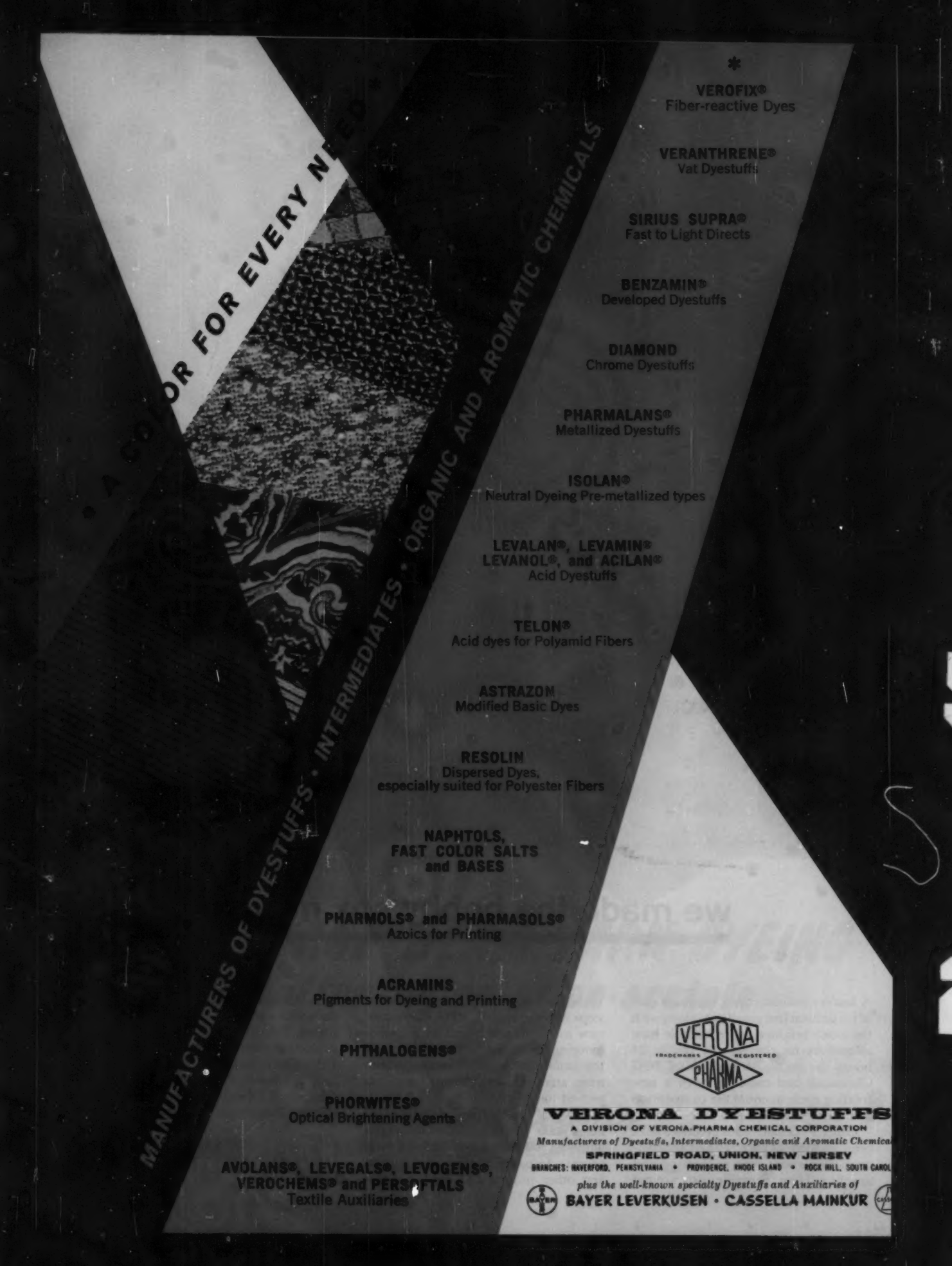
Capacities from 800 grams to 4000 grams; from 2 lbs. to 8 lbs; from 1000 grains to 8000 grains. Pound calibration available in two types: pounds and ounces or pounds and decimals.

Let the balance itself show you what it can do to ease your work and save you time and money. Write to us today for a demonstration of the unit suitable for your work — please indicate your special requirements.

Mettler

INSTRUMENT CORPORATION

P. O. BOX 100, PRINCETON, NEW JERSEY


A COLOR FOR EVERY NEED
MANUFACTURERS OF DYESTUFFS · INTERMEDIATES · ORGANIC AND AROMATIC CHEMICALS
VEROFIX®
Fiber-reactive Dyes
VERANTHRENE®
Vat Dyestuffs
SIRIUS SUPRA®
Fast to Light Directs
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Developed Dyestuffs
DIAMOND
Chrome Dyestuffs
PHARMALANS®
Metallized Dyestuffs
ISOLAN®
Neutral Dyeing Pre-metallized types
LEVALAN®, LEVAMIN®
LEVANOL®, and ACILAN®
Acid Dyestuffs
TELON®
Acid dyes for Polyamid Fibers
ASTRAZON
Modified Basic Dyes
RESOLIN
Dispersed Dyes,
especially suited for Polyester Fibers
NAPHTOLS,
FAST COLOR SALTS
and BASES
PHARMOLS® and PHARMASOLS®
Azoics for Printing
ACRAMINS
Pigments for Dyeing and Printing
PHTHALOGENS®
PHORWITES®
Optical Brightening Agents
AVOLANS®, LEVEGALS®, LEVOGENS®,
VEROCHEMS® and PERSOFTALS
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VERONA
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VERONA DYESTUFFS
A DIVISION OF VERONA-PHARMA CHEMICAL CORPORATION
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BRANCHES: HAVERFORD, PENNSYLVANIA • PROVIDENCE, RHODE ISLAND • ROCK HILL, SOUTH CAROL
plus the well-known specialty Dyestuffs and Auxiliaries of
BAYER LEVERKUSEN · CASSELLA MAINKUR

we made the bobby sox move

A hosiery manufacturer sent us a pair of his unbleached gray hose, along with the much brighter, more saleable item offered by his competitor. Within 24 hours the textile service lab of PPG Chemicals had come up with a new treating cycle to equal the competition and cut bleaching costs too!

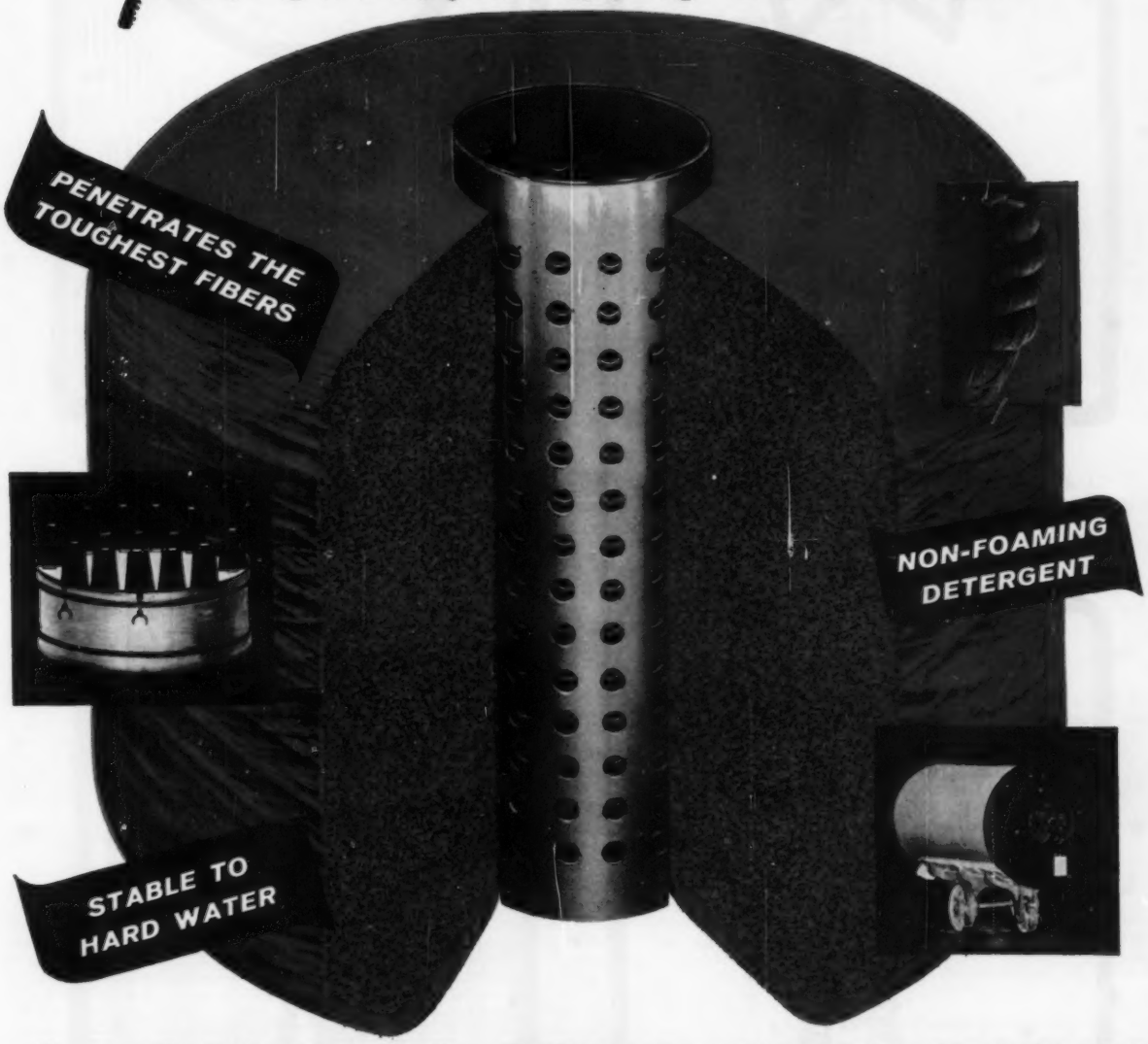
Other PPG Chemicals processes have been applied to bleaching of continuous cotton goods such as sheeting and toweling. Here, peroxide costs are cut by 30% or more, and some processing steps are eliminated. PPG Chemicals' new methods are based on superior scouring (cleansing) steps which reduce the amount of bleach needed. Whiteness, strength and "hand" are improved too.

Practical product research like this helps make PPG Chemicals more valuable to you, more profitable in your process. In paper, textiles, metal, glass and other process and service industries, buyers look to PPG Chemicals for extra values in process improvements, better handling methods, improved grades at regular prices. Is PPG Chemicals on your approved list? Pittsburgh Plate Glass Company, Chemical Division, One Gateway Center, Pittsburgh 22, Pennsylvania.

PPG chemicals

CHEMSOL N-52

penetrant and leveler



for PACKAGE·BEAM·YARN DYEING

for cotton·nylon·orlon·acetate

CHEMICAL PRODUCTS CORPORATION

Manufacturing Chemists

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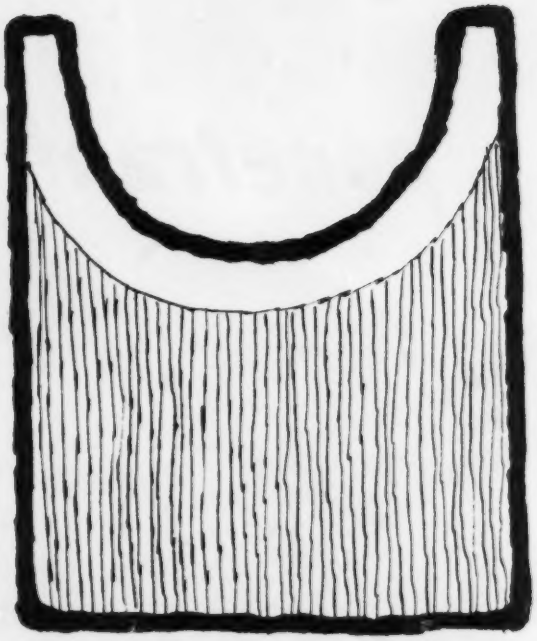
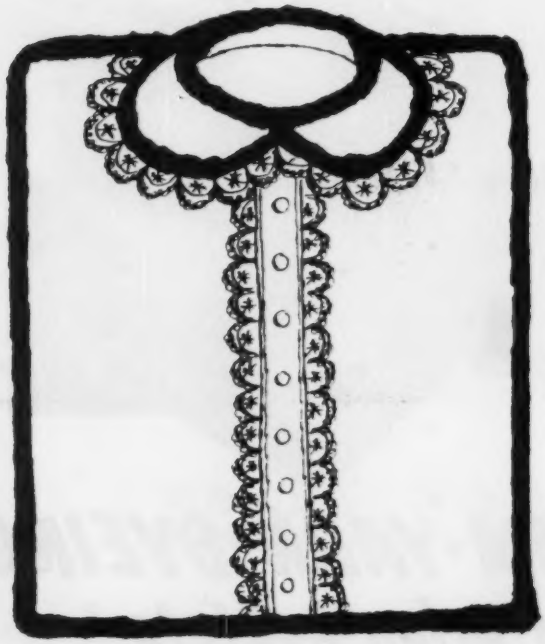
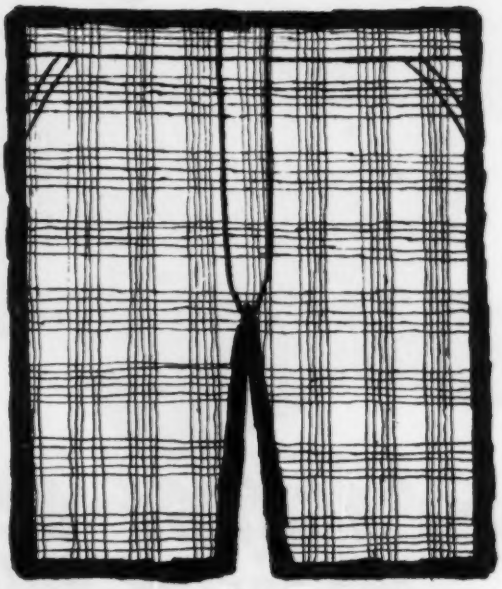


For all Textile Applications **dextraset® resins**





You can keep the promises you make for every yard of fabric finished with Dextraset thermosetting resins. These resins are produced under strict quality control with the latest techniques and equipment. May we show you how a Dextraset resin can help you in your resin finishing applications?

dexter chemical corporation ■ textile chemical division, new york 59 ■ boston ■ charlotte ■ atlanta ■ greensboro ■ buenos aires

DEVOTED EXCLUSIVELY TO TEXTILE WET PROCESSING

ADR

Staff Prepared

Alphabetical List of NEW PRODUCTS

Developed Since November, 1960

Coloring Materials ..... Page 61
Textile Chemicals ..... Page 73
Equipment ..... Page 90

WITH the cooperation of manufacturers of dyestuffs, textile chemicals, and wet processing and laboratory equipment, we have prepared the accompanying list of products, which, it is understood, have been placed on the market or further developed since November, 1960. The list of products has been subdivided according to the classifications mentioned. Suppliers are listed in alphabetical order.

We have tried to make this list as complete and accurate as possible, but there may be some unintentional omissions or errors. If so, we shall be pleased to have such matters brought to our attention immediately. We have depended upon the manufacturers to supply us with a complete list of their new products together with information concerning them. The properties claimed for these products are those claimed by the manufacturers. The information which we publish is necessarily in a brief form inasmuch as lack of space prohibits the publication of complete details concerning any product. We hope, however, that the information as it appears is sufficiently comprehensive to give the reader a specific idea of the properties and intended uses of the product.

COLORING MATERIALS

ACETO CHEMICAL CO, INC
40-40 Lawrence St
Flushing 54, NY

4:4' Diaminostilbene-2:2-Disulfonic Acid (DAS)

It is stated that its most important usage today is as an intermediate for the manufacture of optical whitening agents. It is also a dyestuffs intermediate from which is derived a number of direct cotton dyestuffs, one of the most important being chrysophenine. This latter dyestuff is employed, too, for leather and paper dyeing.

m-Nitro-p-Toluidine (MNPT) (3-Nitro-p-toluidine)

Claimed to be the most important of all diazo components for pigments, being used by the color trade in the production of Hansa yellows and Helio fast reds. It is stated that Hansa Yellow G is widely used in paints and printing inks and oleoresinous coatings generally, because of its brightness and good fastness to light; also, because of its good fastness to alkalis and to lime, in emulsion paints. Hansa Yellow 5G is used principally in printing inks, including inks for offset printing, wallpaper, wrapper and foil printing. One of the most widely used of all red pigments. It is stated that it is among the brightest scarlets available, has high tinctorial strength, is economical in use, of good fastness to acids and alkalis and to light, though it lacks good fastness to organic solvents. MNPT is also sold to the textile trade as Fast Red GL Base.

4-Nitro-o-Toluidine (CH_3=1) (PNOT)

Like other amines, PNOT can be diazotized and coupled to produce both dyestuffs and pigments. It is sold to the textile trade as Fast Scarlet G Base, and is employed by pigment makers, particularly in pigments which are used chiefly in printing inks, although they are also used in paints, wallpaper, paper coating, bookcloth, linoleum, vinyl plastics, chalks, sealing wax, modelling clay and cosmetics.

R Salt (2-Naphthol-3,6-Disulfonic Acid)

A very important azo dye intermediate. It is very soluble in water. R Salt is used for the manufacture of many azo dyes, including CI Acid Red 26, CI Food Red 6, CI Acid Red 17, CI Acid Red 27, CI Acid Red 115. It is also used for the preparation of 2-naphthylamine-3,6-disulfonic acid and 2,3-naphthalenediol-6-sulfonic acid.

2:4 Xylidine (m-4-Xylidine or asymmetrical m-Xylidine or 2:4 Dimethylaniline)

One of its main uses is in the manufacture of acetoacet-m-4-xylidide, which, in turn, is employed as a coupling component to produce Permanent Yellow GR (FH), a yellow pigment for rubber. This pigment is also used in U/F, vinyl and polystyrene plastics; also in printing inks and emulsion paints and distempers and, occasionally, in paper coating, textile printing, pastels and student grade artists' colors.

Other manufacturers' designations are given as follows:

Irgalite Yellow BAW, BAWX(GY)
No. 59 Forthfast Benzidine Yellow (ABF)
Vulcan Fast Yellow GR(FH)

After conversion to m-4-xylidine sulfonic acid, it enters into the manufacture of dyestuffs such as Orange R. It is used also to produce acid scarlet dyestuffs and for certain food colors.

2:6 Xylidine (2,6-Dimethylaniline) (vic-m-Xylidine) ($(CH_3)_2C_6H_3NH_2$)

One of the isomers of xylidine said to possess many interesting possibilities as an intermediate in organic synthesis and dyestuff manufacture. Recently some new dyestuffs have been derived from 2:6 xylidine, which apparently find application in the plastic industry.

ALLIANCE COLOR AND CHEMICAL CO
33 Avenue P
Newark 5, NJ

Azogen Printing Black BRG Double Solution

An azoic printing color compounded to yield a well balanced full black shade, less green than Azogen Printing Black GB. Storage produces no shade changes. Clean running properties combined with formaldehyde and lightfastness are said to make this acid aging black a trouble free inexpensive way for the printer to obtain dependable results.

Ultra Azogen Printing Colors

The Ultra Azogen products are a result of a recent investigation to produce a neutral developing series of Azogen printing colors, requiring no additives or special chemicals.

Ultra Azogen Powders

These powders are said to be stable in storage, easy to handle, and readily soluble. It is stated that, once dissolved and mixed with the print paste, the Ultra Azogen colors require no special handling or attention. They may be printed with any class of color including reactive dyes.

Ultra Azogen Printing Black PB Powder

It is stated that this product will yield a pleasingly full green black shade when printed at 4% to 6%.

Ultra Azogen Printing Blue G Powder

It is stated that this product will yield a full navy shade when printed at 4%.

Ultra Azogen Printing Yellow R Powder

It is stated that this product will yield a full golden yellow shade when printed at 3%.

Ultra Azogen Printing Brown R Powder

It is stated that this product will yield a strong red brown shade when printed at 5%.

Lesser quantities may be used dependent on the depth of the shade required. In addition, any Ultra Azogen product may be used to shade any other Ultra Azogen.

Development of this class of color is accomplished after drying by neutral steam at 212°F, or above, for five minutes.

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ALLIED CHEMICAL CORP
National Aniline Division
40 Rector St
New York 6, NY

Polynal Red BC
Polynal Red B
Polynal Scarlet 2G
Polynal Burnt Orange
Polynal Yellow NLA
Polynal Yellow GSF-D
Polynal Blue GND
Polynal Blue B
Polynal Violet B
Polynal Developed Black B

A select group of highly-dispersed colors suitable for the dyeing of polyester fibers. Polynal dyes are level-dyeing and exhaust well when applied to polyester. They may be dyed in open equipment at the boil with the use of a suitable carrier or pressure dyed at 250°F without the use of a carrier. They are said to yield brilliant shades with a lightfastness rating of from very good to excellent and to have excellent fastness to washing.

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ALTHOUSE CHEMICAL CO
500 Pear St
Reading, Pa

Benzanol Brown HPS

A new direct brown for the dyeing of unions between cotton and rayon that leaves the acetate fibers undyed.

Lanafast Yellow 3GNW

A new premetalized neutral dyeing acid color for nylon, wool, and modified acrylics. It is said to have maximum light- and wetfastness.

Nylanthrene® Brown GRL

A new lightfast brown for nylon that is said to be an excellent base for the dyeing of the present day fashion shades.

Nylanthrene® Red 4RL

A new Nylanthrene® Red that is claimed to be far superior in lightfastness and dyeing properties to previous offerings in this series of neutral dyeing colors for nylon.

Nylanthrene® Scarlet 2GL

A bright neutral dyeing scarlet for nylon which is said to have excellent fastness to light, together with good wetfastness. It is much brighter in shade than any of the previous Nylanthrene® Red or Scarlet offerings.

Supernylite® Yellow HCF

An acid dyeing color for nylon that leaves the acetate fibers undyed. It is said to have very good fastness to light and is recommended by the manufacturers for the dyeing of color effects between nylon and acetate.

Supernylite® Cerise BL

A bright shade of cerise for nylon, wool, modified acrylics, etc, that is said to have very good fastness to light, together with good wetfastness. It is stated that the bright shade is an excellent base for the dyeing of the present day fashion shades of red.

Spanyl Dyes

A new series of colors for the spandex elastic fibers, which are said to have very good fastness to light and water. These colors are applicable for the dyeing of unions between nylon or wool and the spandex fibers. They are applied with conventional dyeing procedures.

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AMERICAN CYANAMID CO
Organic Chemicals Division
Dyes Department
Bound Brook, NJ

Calcogene Black SRCF Solution

A new red shade sulfur black in solution form. By using this dye alone or in combination with greener Calcogene dyes the entire range of popular black shades can be covered.

Calcoloid Blue BLRC Single Paste
Calcoloid Blue BLRC Double Paste

A modification of Vat Blue 6 exhibiting a redder and brighter shade and requiring a minimum of caustic and hydrosulfite for dyeing.

Calcoloid Deep Black GC
Calcoloid Deep Black RC

Two new direct dyeing vat blacks said to exhibit excellent value along with satisfactory fastness properties for most end uses.

Calcoloid Jade Green L Supra Double Paste
Calcoloid Olive RL Double Paste
Calcoloid Blue BLL Double Paste
Calcoloid Blue BLL Single Paste
Calcoloid Navy Blue L Single Paste
Calcoloid Gray 2GL Double Paste
Calcoloid Brown GL Double Paste
Calcoloid Olive TL Single Paste
Calcoloid Violet BNL Double Paste
Calcoloid Direct Black GDL Double Paste
Calcoloid Direct Black PBL Double Paste

A line of vat dye formulations developed specifically to overcome the problem of migration which occurs during the drying of pigment padded fabrics.

Calconyl Navy Blue CP Solution

A stabilized azoic navy said to possess excellent working properties, rapid development and desirable shade. Normal acid aging is recommended.

Calcozine Acrylic Orange 3R
Calcozine Acrylic Red B

Two new cationic basic dyes said to be of excellent fastness on acrylic fibers. Level dyeings are obtained by simplified procedures which call for no retarders.

Calcozine Black MD

A basic black said to exhibit excellent value and adequate fastness for use along with Calcozine Acrylic dyes in dyeing acrylic fibers.

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ANSBACHER-SIEGLE CORP
Textile Color Department
92 Chestnut Ave
Staten Island 5, NY

Suntone* Blue AS2G

An O/W green shade phthalocyanine blue said to possess high color yield and exceptional fastness properties.

Suntone* Brown OS4K

A deep toned W/O brown said to possess lightfastness suitable for drapery application.

Suntone* Yellow K2G Dispersion
Suntone* Yellow K2R Dispersion
Suntone* Green KB Dispersion
Suntone* Blue KG Dispersion
Suntone* Blue K2G Dispersion
Suntone* Violet KE Dispersion

Anionic dispersions designed particularly for O/W emulsion formulations. A complete line of "K" type dispersions are available in this series.

Suntone* Brown OSR

A red shade W/O organic brown said to possess high color yield in all shade ranges.

Suntone* Orange WD40 Dispersion
Suntone* Blue WD2G Dispersion
Suntone* Violet WDE Dispersion

Anionic dispersions for W/O emulsion formulations. These three additions to the "WD" Dispersion Series includes shades of bright, fast orange; a clear green shade phthalocyanine blue; and a fast, rubine violet.

Suntone* Scarlet OSV
Suntone* Scarlet ASV

W/O and O/W printing colors that produce yellow cast reds and pinks that are said to be particularly fast to light, with excellent resistance to solvents and plasticizers.

Suntone* Violet AS3Y

An O/W bright red violet with a blue undertone, said to have excellent wash fastness, suitable for dress goods application as a toner or shading color.

Suntone* Violet AS4Y

An O/W bright red shade of violet with a yellow undertone, suitable for dress goods application and reported to have good washfastness and brilliance of shade.

Suntone* Yellow N2R Dispersion
Suntone* Green NB Dispersion

Nonionic dispersions of a lightfast yellow and a phthalocyanine green. These products are suitable for use in O/W or W/O emulsions.

Suntone* Yellow OSKB

An organic W/O yellow designed to produce the shading properties of iron oxide, while retaining the desirable fastness properties of the organic pigment class.

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ARNOLD, HOFFMAN & CO INC
55 Canal St
Providence, RI

Ahcovat* Direct Black CH Paste

A homogeneous anthraquinone type vat dye said to have high fastness to peroxide bleaching, excellent lightfastness and very good fastness to washing and to chlorine. It is of particular interest for the dyeing of effect threads, embroidery yarns and ginghams where fastness to bleaching is essential. Ahcovat Direct Black CH Paste can be applied by any of the accepted batchwise dyeing methods, as a black or a shading color.

Carbolan* Brilliant Blue 2RS
Carbolan* Rubine 2BS
Carbolan* Violet 2RS

These are additions to the Carbolan range of acid milling dyestuffs. Carbolan dyes

*Registered trademark

*Registered trademark

are said to combine brightness of shade with a standard of wetfastness properties generally much superior to that of conventional acid milling dyes.

1. Carbolan Brilliant Blue 2RS is a bright reddish blue said to possess excellent all-round fastness properties.

2. Carbolan Rubine 2BS is a bluish red said to be of good tinctorial value, and is used for making deep red, wine and maroon shades on wool.

3. Carbolan Violet 2RS is said to provide an excellent basis for the production of all shades of violet.

Fluolite** MP Liquid

An anionic fluorescent whitening agent, miscible in all proportions with soft water. Easily prepared solutions containing over 0.5% Fluolite MP Liquid may be stored for at least a week with no deleterious effect. It may be applied to cellulosics by exhaust or pad techniques, and is also of interest in printing. The product is said to have excellent building-up properties and good wash, perspiration, peroxide, hypochlorite, hydrosulfite and sea water fastness.

Procion* Brilliant Blue H5GS

A turquoise blue with very good building-up and washing off properties. Of particular interest for printing and continuous dyeing. One of its outstanding advantages is said to be freedom from staining during the initial washing off of prints.

Procion* Brilliant Blue H5RS

This "H" type dyestuff produces reddish blue shades said to have fastness properties generally typical of the fiber reactive category.

Procion* Navy Blue H3RS

This "H" brand navy blue is said to have excellent solubility and building-up properties, and to give full navy shades of high light- and washfastness. The shade is very close to that achieved with the widely used Fast Blue B/Naphthol AS azoic combination and the lightfastness is claimed to be superior to this combination.

Procion* Green 2BS

Said to be the only homogeneous fiber reactive green dyestuff. It is similar in tone to, but duller than, vat jade green. Dyeings are said to have good lightfastness which is not appreciably changed on resin treating, and wetfastness is very good.

Procion* Brilliant Orange H2RS

A bright reddish orange which builds up to deep shades without solubility difficulties. It is free from staining in the initial washing of prints. Very good wash- and chemic-fastness and good fastness to acid or alkali spotting are claimed. Moderate lightfastness is affected slightly on resin aftertreatment, but is adequate for dress good styles.

Procion* Red Brown H4RS

A reddish brown which builds up to deep brown shades and provides a highly satisfactory basis for browns and maroons. Solubility difficulties are not encountered in heavy shades and the product is free from staining during washing off. Procion Red Brown H4RS is said to have very good washing and chemic fastness, and moderate to good lightfastness.

Procion* Yellow 4RS

Procion Yellow 4RS produces attractive yellow-yellowish orange shades of good building-up properties. In combination with other Procion dyes, a variety of browns, olives, reds and scarlets can be achieved. Its salient features are said to be: novel shade, high tinctorial strength, good solubility, moderate substantivity, good washfastness and moderate discharge properties.

**Trademark, property of I C I Ltd
*Registered

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ATLANTIC CHEMICAL CORP
153 Prospect St
Passaci, NJ

Anthravat Dark Blue BO Paste

A new superdispersed, anthraquinone vat blue for package and piece dyeing.

Atlantic Acid Black NCB
Atlantic Acid Scarlet 4R
Atlantic Brown A
Atlantic Direct Black GXOO 200%
Atlantic Direct Black GXR 200%
Atlantic Direct Fast Orange LL2G
Atlantic Direct Fast Red BB
Atlantic Direct Fast Turquoise FBL

Atlantic Direct Fast Yellow RLC

An acetate white-dischargeable, fast to light yellow for use in dyeing and printing. This versatile and economical color may also be used for many resin aftertreatment applications as well as on paper.

Atlantic Fast Light Yellow 2G

Atlantic Resin Fast Black LW (Patent Applied For)

A new, low cost, nonbronzing, resin-fast black with good acetate reserve for use on cotton, rayon, and union fabrics for self-shade and aftertreatment. Atlantic Resin Fast Black LW does not alter in shade when aftertreated with urea-formaldehyde, melamine and other resin finishes. It gives a bloomy shade when aftertreated with copper containing dye-fixing agents. Atlantic Resin Fast Black LW is said to have excellent solubility and exhaust uniformly to give bright greenish black shades.

Atlantic Resin Fast Black RLW (Patent Applied For)

A redder type of the Atlantic Resin Fast Black LW, similar in properties, but which gives a redder cast in built-up shades.

Atlantic Resin Fast Blue BFL

Offering bright bloomy navies with a clean tone in lighter hues, Atlantic Resin Fast Blue BFL is said to be particularly suited for resin-treated combination fabrics.

Atlantic Resin Fast Blue BRN

Claimed to be the most economical, resin-fast blue for building deep navies on rayon, synthetics and blends.

Atlantic Resin Fast Blue 8GLN

A full bright greenish utility blue, said to be fast to resin aftertreatment, which finds its greatest use in synthetic combination fabrics. Atlantic Resin Fast Blue 8GLN has very little color loss or shade change at elevated temperatures when dyed in combination with polyester fibers.

Atlantic Resin Fast Brown 5GLL

Atlantic Resin Fast Brown RBCW

A welcome addition to the resin-fast line, Atlantic Resin Fast Brown RBCW has very good acetate reserve in addition to excellent light- and washfast properties.

Atlantic Resin Fast Violet BL
Atlantic Wool Orange G

Naphthol AS-D Suprasperse

New, high yield Naphthol AS-D, especially prepared for use in dyeing polyester fabrics.

Neutrazoic Black BGL Powder

A welcome addition to the Neutrazoic line, Neutrazoic Black BGL Powder finds extensive use as a nonhaloing black for printing alongside of and for outlines with fiber-reactive and pigment shades on cotton and rayon. It is a deep, bloomy black for use in either neutral or acid agers and is said to have very good light and chlorine fastness. Neutrazoic Black BGL Powder may be printed from water gums or emulsions.

Neutrazoic Black GF 167%

This low cost, high yield black has recently been added to the Neutrazoic line of neutral and flash aging azoics. Neutrazoic Black GF 167% is said to be fast to formaldehyde and resin finishing and may be printed out of emulsion systems or water gums.

Thiovat Brilliant Indigo 4BR Paste
Thiovat Brilliant Indigo 2BDM Paste
Thiovat Printing Black AR Double Paste

* * *

CARBIC-HOECHST CORP
Sheffield St
Mountainside, NJ

Dyestuffs

Acid

Acid and chrome dyes added to the list of Carbic-Hoechst Corp:

Flavazine E3GL
Flavazine S
Fast Light Yellow G
Cyanol Extra
Wool Fast Green GWA
Salicine Chrome Orange H3R
Salicine Chrome Bordeaux R
Salicine Chrome Grey G

Basic

Basic dyes added to the list of Carbic-Hoechst Corp:

Chrysoidine HR
Safranine TH Extra Conc
Safranine HMN Conc
Methylene Blue BB Extra Highly Conc

Disperse

Specialty disperse types for polyester fibers. They are said to be distinguished by their high degree of brilliancy and their outstanding fastness to sublimation combined with very good fastness to light:

Samaron Brilliant Yellow H7GL
Samaron Brilliant Yellow HRL
Samaron Orange HFFG
Samaron Orange HRRE
Samaron Brilliant Pink HGG
Samaron Violet HFRL

Fiber Reactive

These are new additions to the line of vinyl sulfone fiber reactive dyes. Like the other vinyl sulfone types, the new brands are not only suitable for cellulosic fibers but also fibers such as Creslan (® American Cyanamid), Orlon 44 (® DuPont) and Acrilan (® Chemstrand).

Remazol Brilliant Orange RRA
Remazol Brilliant Orange 3RA
Remazol Navy Blue RD
Rhodazol Yellow GED
Rhodazol Brilliant Violet 4BA

Naphtol

These are the first naphtol couplers which, it is stated, can be metallized and produce dark green, dark brown and grey shades of excellent fastness properties.

Variogen Base I
Variogen Base II
Variogen Salt II

Note: Remazol, Rhodazol, Samaron and *Variogen* are trademarks of Farbwerke Hoechst AG.

Vat

Indigosol Yellow I2G (F) is a new vat leucoester which is said to be very fast to light, washing and chlorine. It is stated that an outstanding feature is the fact that this vat yellow does not tender the fiber during prolonged exposure to light which makes it especially valuable for draperies and awnings.

Note: Indigosol is a trademark of Durand and Huguenin, SA

* * *

CIBA COMPANY, INC
Fair Lawn, NJ

Benzyl Fast Yellow RLE

Dyes and prints wool, silk and nylon a bright, slightly reddish yellow shade. It is said to possess very good fastness to light and good all-round wetfastness. Dyeings are dischargeable to a white. It is reported to have very good leveling properties. Recommended by the manufacturers in combination with Benzyl Fast Red 2BL and Alizarine Fast Blue BE, dyed with Univadine* W (Ciba) in the dyebath, for good build-up and leveling in dyeing fashion shades on wool piece goods. Is suitable as a "brightening" color for Cibalan* dyes. Is recommended for dyeing loose wool (where only light milling required), knitting and carpet yarn, and piece goods.

Cibacete* Brilliant Pink 4BN Micro Disperse

Claimed to be essential for all red-violet and magenta pink shades on acetate, Arnel and polyester fibers. It is said to have excellent sublimation fastness and is particularly recommended by the manufacturers for printing.

Cibacete* Brilliant Pink FB Micro Disperse

Outstanding pink said to possess superior light and sublimation fastness on acetate, Arnel and nylon. Is also recommended by the manufacturers for polyester fibers and is said to be an exceptional red component for dyeing nylon carpeting because of its light and sublimation fastness.

Cibacete* Printing Black RHP
Cibacete* Printing Black RRHP

Green and red shade deep jet blacks for polyester fibers and Arnel. They are said to be very good shading elements for polyester fibers.

Cibacron* Black RP

A neutral shade primarily used as a grey for prints on cotton and rayon. Is also used as a black on cotton. It is stated that it has very good solubility and that print pastes are very stable. Unfixed color is easily washed off with no danger of staining white grounds. It is claimed to have very good fastness to light, water, washing and perspiration.

Cibacron* Blue 2R

A reddish shade blue that is claimed to be the most economical of all reactive blues. Builds up well. Is used in combination for navies. It is stated that it has good light- and washfastness, is suitable for resin finishes and is claimed to be the best reactive blue for the cold pad-batch method.

Cibacron* Brilliant Orange GP

A bright, reddish orange particularly suited for padding and printing. Produces beautiful scarlets on wool in combination with Cibacron* Scarlet and Cibacron* Brilliant Red types. Unfixed color is easily removed.

*Registered trademark

Cibacron* Brilliant Red BD

Produces bright scarlets in combination with the Cibacron* Yellow types. It is recommended by the manufacturers for printing on cotton and rayon and is said to have very good solubility, excellent print paste stability, good lightfastness and very fast to water, washing and perspiration. Unfixed dye is readily washed off without staining white areas.

Cibacron* Brilliant Red 2 GP

A metal-free reactive dye with a bright full, yellowish red shade. It is claimed to be an outstanding dye for printing and pad-steam, and is also of interest for thermofix dyeing of cellulosics and the dyeing of wool. It is stated that it has good build-up in printing, excellent solubility and unfixed dye is easily removed.

Cibanone* Black MBA Double Paste

A bloomy, jet vat black said to be of excellent fastness properties and outstanding value. Is especially recommended by the manufacturers for dyeing cotton yarns for the knitting and weaving trades as well as cotton yarn for sewing threads. Can be applied by pigment or reduced methods of dyeing. May also be used for dyeing cotton piece goods or spun rayon.

Cibanone* Grey P2R Double Paste

A neutral shade vat grey said to have very good fastness and level dyeing properties. Is especially recommended by the manufacturers for dyeing on packages and beams by the pigment and/or reduced methods.

Rosanthrene* Fast Brown DDL

A reddish brown said to have good lightfastness both when dyed direct or developed with beta naphthol and to show excellent white discharge.

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COLLWAY PIGMENTS
A Division of General Aniline & Film Corporation
435 Hudson St
New York 14, NY

Permanent Violet N Supra Paste 49-6027

A nonionic paste version of Permanent Violet A Supra Paste 49-6016 (anionic type). Like the earlier product, the new Permanent Violet N Supra Paste 49-6027 is a free-flowing type that disperses readily in water. Average particle size is less than 1 micron, in the range of 0.1 to 3.0 m. It produces a brilliant bluish violet shade said to be of excellent fastness to light and washing, with strong nonbleeding characteristics. The color is very suitable both as a self shade and to blending with phthalocyanine blue to produce redder shades of blue. Useful in latex formulations, as in carpet backings, and for many other purposes.

Permanent Violet Toner 49-6001

A high-grade toner for use in printing inks, plastics, etc, both as self shade and for shading. This is a new form of this color compound.

Permanent Violet Presscake 49-6003

This is the new presscake form of the color component of the above two products. This color is now available in five forms: the two paste types, lake, toner, and presscake. Permanent Violet Presscake 49-6003 is useful in textile printing and in producing flushed colors.

*Registered trademark

COLTAR DYESTUFF CORP
369 Greenwich St
New York 13, NY

Coltar Dyestuff Corp, an affiliate of Rutherford Dye & Chemical Co, Inc, has acquired the fugitive Detecto colors line from The Harshaw Chemical Co, effective last September 18th. Two new colors have been added to the series:
Detecto Red G
Detecto Violet BW

* * *

E I DU PONT DE NEMOURS & CO (INC)
Organic Chemicals Department
Dyes & Chemicals Division
Wilmington, Del

Acid Dyes

Du Pont Anthraquinone Blue GSS

Especially recommended by the manufacturers as a neutral-dyeing acid color for dyeing nylon. It is completely compatible with the existing range of neutral-dyeing acid colors and is said to possess outstanding fastness to light on nylon and evidences suitability for dyeing wool and silk.

Roracyl* Dark Brown G

Suitable for production of medium and dark brown shades on leather. It is a companion color to "Roracyl" Dark Brown B but yellower in shade and is of interest as a self-color in matching the currently popular dark olive browns.

Cationic Dyes - Basic Dyes

A number of solution types have been added to the range of existing basic dyes. The solution form eliminates certain undesirable elements particularly where dusting is an important factor in the continuous coloring of paper. These types maintain the general characteristics of the standards but provide certain additional factors of convenience in handling. These are:
Du Pont Chrysoidine GN Solution
Du Pont Chrysoidine R Solution
Du Pont Ethyl Violet Solution
Du Pont Victoria Green Solution

Du Pont Spirit Violet SR

Especially developed for use in spirit duplicating systems being smudge-resistant and a slow-release, long-run violet.

Du Pont Basic Kraft Brown

Recommended by the manufacturers for use in the coloration of such papers as glassine, wrapping, box, container boards and other inexpensive grades of paper. It produces reddish-brown shades, is said to have good solubility and is widely used in surface coloring.

Dekatyl Violet B**

A new type cationic dye recommended by the manufacturers for producing deep shades on Dacron* types 62 and 64 polyester fiber and on other fibers with affinity for cationic dyes. This new dye is said to exhibit outstanding fastness to light and good fastness to wet processing. Dekatyl Violet B should be especially useful in piece dyeing blends or mixtures of Dacron types 64 and 62 with other fibers such as wool and the 50 series Dacron.

Sevron* Yellow 2R

Claimed to possess all of the properties required of a dye for Orlon* acrylic fiber and is also of interest for Dacron types 62 and 64 polyester fiber. It produces reddish-

**Du Pont trademark
*Du Pont registered trademark

yellow shades and is said to have exceptionally good fastness, good solubility, good hydrolytic stability over a wide pH range and good stability to high temperatures. Sevron Yellow 2R can be used over the entire shade range and is said to be of particular value for deep shades because of its relatively fast dyeing rate, with consequent good exhaust. It is stated that Sevron Yellow 2R exhibits very good fastness to Florida sunlight on Orlon type 36 carpet yarn. It is also of interest for use on Chemstrand Acrilan acrylic fiber, American Cyanamid Creslan acrylic fiber, and Eastman Chemical Verel modacrylic fiber.

Disperse Dyes

The range of Latyl* dyes is gradually being augmented by the production of a well-rounded line of these disperse dyes in paste form. They are readily dispersible and non-specking types especially prepared for application by the Thermosol process. Their fastness properties and general characteristics are identical with those of the standard products. Added are the following:

Latyl Yellow 3G 80% Paste
Latyl Yellow RC 50% Paste
Latyl Yellow YLW Paste
Latyl Orange NST 80% Paste
Latyl Brown MS 50% Paste
Latyl Bordeaux B 80% Paste
Latyl Cerise B 80% Paste
Latyl Red MG 50% Paste
Latyl Red MG 80% Paste
Latyl Violet BN 80% Paste
Latyl Violet 2R 80% Paste
Latyl Blue LS 80% Paste
Latyl Blue 2R 80% Paste
Latyl Blue 4R 80% Paste

Latyl Yellow YLW

Produces bright, greenish-yellow shades which are said to have good fastness to light and washing, and outstanding fastness to sublimation when applied to Dacron* polyester fiber. It is recommended for use in the light to medium shade range and as a shading color for tans and light browns. Latyl Yellow YLW is level dyeing, builds up to 2.0%, and can be applied by any of the procedures recommended for dyeing Dacron. It is said to have good fastness on other fibers in the lighter shades. It is used considerably for producing a maize shade on sweaters of Orlon* type 42 acrylic fiber and is a good printing color for Dacron.

Latyl* Cerise Y

A bright red noticeably yellower than Latyl Cerise B. It exhibits the same high degree of lightfastness as the latter product plus added resistance to sublimation. Latyl Cerise Y will be of special interest for use as the red element in dyeing Du Pont 501 nylon carpet yarn. It is also recommended by the manufacturers for use in printing and for dyeing Dacron* polyester fiber and other disperse-dyeable synthetic fibers where a high degree of sublimation fastness is required.

Latyl Diazo Black ND

Has been especially developed for use in the pressure dyeing of stock, top, tow and yarn of Dacron polyester fiber. It is stated that this new dye produces black shades economically and has exceptionally good fastness to light and wet processing. It shortens the developed black procedure in that this dye contains both the base and developer. The procedure is to apply the Latyl Diazo Black ND followed by diazotization in a fresh bath. This new dye is also suitable for application to Chemstrand Acrilan acrylic fiber, Celanese Corp Arnel triacetate, Eastman Kodel polyester fiber, nylon 66 and Vycron polyester of Beaunit Mills, Inc.

*Registered Du Pont trademark

Direct Dyes

Pontamine* Bond Yellow 3G

Developed for use in the paper industry and is suitable for application to most grades of paper but is of special interest for dyeing bond, writing, duplicator, mimeograph and envelope stocks. Since this product is well retained without the use of alum, it can be recommended for unsized papers such as tissue grades. It can be easily bleached with a hypochlorite bleach. It has good non-twosided characteristics especially in the presence of fillers such as Ti-Pure* titanium dioxide and clay. This product is recommended for use on papers that are made at moderately high pH ranges because it is said to possess good affinity for the fiber over a fairly wide range.

Neutral-Dyeing Premetalized Dyes

Spirit Soluble Types of Capracyl* Dyes

The SS types represent a specially manufactured range of spirit soluble dyes suitable for use in coating lacquers. They are said to possess outstanding fastness to light, to be stable to heat and to be of particular interest in coloring aluminum foil. Either nitrocellulose or vinyl lacquers can be employed. The Capracyl SS Colors are recommended for use in woodstain compositions where they are said to show considerably better lightfastness than currently used acid dyes. Included are:

Capracyl Yellow GWSS
Capracyl Yellow NWSS
Capracyl Orange RSS
Capracyl Brown RDSS
Capracyl Red BSS
Capracyl Red GNSS

Capracyl* Light Brown FR

Said to be of outstanding interest for use on wool and nylon. It is especially recommended by the manufacturers for producing tan and light brown shades on wool. It can be applied to wool by either the acid or chromate method, and is said to possess very good resistance to washing and fulling and to have good lightfastness. This product is also said to show good fastness toward light and washing when applied to nylon.

Pigment Colors

Ponolith** Fast Black P Liquid

A highly dispersible pigment color supplied in pourable, liquid form. It is said to have excellent fastness to light and to be especially suitable for tinting paper pulp to increase opacity, for use in the production of tinted coatings and for general tinting purposes. This new liquid is recommended for the production of light gray shades but is not intended to be used as a black. It can be conveniently applied in continuous coloring systems and is said to possess exceptionally good storage stability. In addition, it is said to exhibit excellent fastness to 1% solutions of sulfuric acid and caustic soda and, since it is not bleachable, to have excellent fastness to sodium or calcium hypochlorite.

Since "Ponolith" Fast Black P Liquid is a pigment color it requires a small amount of alum or other fixing agent to obtain complete retention. When used in coating formulations it will withstand high alkalinity as well as high temperatures.

*Registered Du Pont trademark
**Du Pont trademark

Ponolith** Fast Blue PT Liquid

Possesses essentially the same working and fastness characteristics as the black and is a dispersed pigment particularly designed for use in the paper industry.

Monastral* Fast Green GYH Paste

A dispersed paste said to possess excellent working properties in numerous applications. It is stated that it produces a yellowish shade of green, has outstanding fastness, is recommended for use in textile printing and is ideal for the coloration of latex paints.

Vat Dyes

Ponsol* Brown WAB Paste

An economical anthraquinone vat brown that is said to be suitable for almost all types of vat dye application. This product has good working properties when reduced and dyed at 120°F on packages and beams. It is not recommended for high temperature work since it becomes much weaker and duller in shade at 180° to 190°F. It is stated that it produces speck-free paddings, is satisfactory for use by the vat-acid procedure, shows good uniformity in shade and strength on packages and can be printed in light shades.

Water-Dispersible Vat Dye Powders

The line of water-dispersible vat dye powders especially designed for reduced dyeing has been augmented by the production of Ponsol* Olive FD Double Powder and Ponsol Golden Orange 3GND Double Powder. These types carry the same shade, fastness and other characteristics as the standard products.

Ponsol Direct Black 3G Double Paste for Printing

Gives a broader use to this vat black by making it available to the textile printing industry. It is especially processed for this purpose and has the all-round fastness properties of the dyeing type.

Ponsol Direct Black LA Double Paste

An economical vat black particularly recommended by the manufacturer for dyeing packages, rawstock, beams and men's hosiery. It can be applied to piece goods on the jig but has not been controlled for migration. This new product is said to possess excellent fastness to light, and to show a 4-3RW shade change from the effect of chlorine and a 4-3W shade change on bleaching with peroxide. Cotton staining in the latter test is equal to that of similar vat blacks now on the market. It can be applied by both reduced and pigment systems. It also exhibits good stability when applied at high temperatures.

White Dyes

Du Pont Paper White SPS Solution

This dye represents an addition to the line of fluorescent brighteners. It is of interest for surface application, produces a clear solution and is said to show excellent buildup properties when surface applied over the pH range of 4.0 to 8.5. It is effective as a beater addition but requires alum for retention. There is no evidence of graniting.

Pontamine* White SP Solution

The same in general characteristics to the Du Pont Paper White SPS Solution but is prepared especially for use on textiles. It is of interest for padding, has low affinity and is compatible with resins using zinc nitrate as the catalyst.

*Registered Du Pont trademark
**Du Pont trademark

EASTMAN CHEMICAL PRODUCTS, INC
Subsidiary of Eastman Kodak Company
Kingsport, Tenn

Eastman* Polyester Orange 3RLL

Produces a bright red shade of orange on polyester fibers said to possess excellent fastness to light, washing, wet processing, and dry cleaning. Eastman Polyester Orange 3RLL is said to offer high tinctorial value and economy and is suitable for pressure and jig dyeing. It is claimed to have excellent fastness to light and wetfastness on cellulose acetate and polyamide fibers, particularly texturized and multilobal-polyamide fibers.

* * *

FRANCOLOR INC
148 Hamlet Ave
Woonsocket, RI

Acetacid Brilliant Red BR Extra Conc

A special acid color for polyamid which yields bluish red shades by dyeing and printing. It is said to have very good fastness to light, as well as to wash and wet treatment. It is stated that it is rated excellent to steaming under pressure and to sublimation (30" at 340°F). It may be dyed in conjunction with the following acid colors without risk of blocking:

Acid Fast Light Yellow 3JL
Acid Fast Light Red RJL
Acid Fast Light Red 4BL
Milling Bordeaux B
Acetacid Light Violet 2BL
Sulfacid Light Blue 2RL
Sulfacid Light Blue BJ
Acid Fast Light Blue BL

When dyeing it is necessary to use sulfuric acid for exhaustion and for maximum brightness. It is said to give excellent results by printing on polyamid with the Solutene CI-phenol formulation. Refer to Technical Leaflet 307-E.

Acetoquinone Light Black BRI

A new disperse color for printing acetate rayon and nylon which yields full black prints. It is claimed that it is suitable for the printing of fine designs and for large blotches, in view of its excellent leveling properties and fastness to steaming. Technical Leaflet No. 282-E is available on request.

Acetoquinone Light Blue BLLZ

This color is recommended by the manufacturers for the dyeing of acetate rayon. It is said to be characterized by outstanding fastness to gas fading, even in pale shades, excellent fastness to acid and very good fastness to light. It is also said to have good leveling and migration properties and excellent sublimation fastness. It is recommended by the manufacturers for the dyeing of gas-fast acetate rayon fabrics at 175/185°F. Refer to Technical Leaflet No. 321-E for additional details.

Acetoquinone Light Blue Green 4JL

This color is suitable for the dyeing and printing of cellulosic acetate and polyester. It is brighter and greener than the Acetoquinone Light Blue Green JL. It is said to have good leveling properties and is recommended to obtain turquoises and bright greens in combination with various Acetoquinone yellows. It is also suitable for the dyeing of Arnel and nylon, according to the conventional procedure. It is further said to be characterized by good lightfastness and good wetfastness. Refer to Technical Leaflet 327-E for further details.

*Registered trademark

Acetoquinone Light Scarlet BLZ

A new disperse color said to be characterized by very good dispersion, good migration, and good affinity for acetate and Arnel. It is also suitable for printing acetate and Arnel and is completely dischargeable. It is illustrated in Technical Leaflet No. 277-E.

Acetoquinone Light Yellow 3RLLZ

A new disperse color said to possess excellent yield, generally good fastness and dispersion and to be suitable for dyeing and printing acetate. It is further said to have very good lightfastness and excellent gasfastness. Technical Leaflet No. 279-E is available.

Amichrome Light Colors

A group of 2-1 chrome and cobalt metal complex colors for polyamid. Their plastosoluble characteristics are said to give them a better coverage of barres and other metal complexes when dyeing at high temperature. They are further said to be characterized by their excellent yield (they can be used up to 5% with a 90 to 100% yield) and to have very good fastness to light and to wet treatment. They require an acid pH for best dyeing results. In addition to polyamid, they can be applied on acrylonitrile at high temperature or at the boil with Texaryl DSA. They can also be applied by the pad-steam or Thermoset method. They are illustrated in the Francolor Synthetic Fibers Manual, the following colors being currently available:

Amichrome Light Yellow 2RL
Amichrome Light Yellow 3RLL
Amichrome Light Red RBL
Amichrome Light Red 2BRL
Amichrome Light Bordeaux RJLL
Amichrome Light Violet BRL
Amichrome Light Navy RBLL
Amichrome Light Olive BLL
Amichrome Light Brown RJLL
Amichrome Light Black RBLL
Amichrome Light Grey 5BLL

The Amichrome Light colors are suitable for printing. They are compatible with the Dimacide Light colors which can be used to shade them over.

Chrome Brilliant Blue 3R

An addition to the line of mordant colors said to have excellent build-up. Its bright shade is of particular interest for the dyeing of dark and navy blues on yarn and tops. It is further said to have excellent solubility and very good fastness to carbonizing and crossdyeing. It is recommended for dyeing by the topchrome and metachrome methods. Technical Leaflet No. 294-E is available.

Chrome Fast Black PBLL
Chrome Fast Black PLL

These two colors are said to have excellent solubility, good stability to hard water and they are particularly recommended by the manufacturers to dye deep blacks of good fastness to light and wet treatment where potting and acetic acid crossdyeing fastnesses are required. The PBLL is slightly bluer than the PLL. Both colors, illustrated in Technical Leaflet No. 310-E, are further said to have excellent carbonizing fastness.

Chrome Fast Brown RL

A mordant color for dyeing wool said to have good general fastness properties. In conjunction with Chrome Fast Yellow J2RL, it is said to yield very fast to light yellowish brown shades. It is further said to have excellent solubility and very good leveling properties to dye nylon. It is illustrated in Technical Leaflet No. 317-E.

Chrome Fast Red JRL

A chrome color illustrated in Technical Leaflet 322-E and recommended for the dyeing of wool by the topchrome and metachrome method. It is said to be characterized by over-all good general fastness properties, excellent solubility and leveling properties and to reserve cotton in an acid bath. It is recommended for machine package dyeing and is said to show very good to excellent fastness to carbonizing with sulfuric acid.

Diazamine Light Red 2B

An addition to the line of diazotized and developed colors for cotton and viscose. It is said to be characterized by good fastness to resin which does not affect the lightfastness. It is further said to have good leveling properties particularly on viscose rayon and mixtures with cotton. It has good dischargeability under neutral and alkaline conditions. It is stated that it is possible to dye wool and cotton uniformly with Diazamine Light Red 2B and metals have little effect on its shade. Refer to Technical Leaflet No. 302-E.

Diazol Light Red 3B

An addition to the line of direct colors for cotton and viscose characterized by its brightness of shade, superior to Direct Red 79, and Direct Red 81. It is said to be particularly suitable for the dyeing of barres on viscose. Its fastness to wet treatment is appreciably improved by after-treatment with Fixogene TN Extra Liquid. It has good reserve of acetate rayon and animal fibers and is suitable for dyeing by the pad-roll process. Technical Leaflet No. 281-E illustrates this color.

Diazol Light Turquoise JRL Ultra Conc

A special direct color recommended for the dyeing and printing of cotton and viscose. It is said to have excellent solubility and is suitable for pad-jig or pad-roll dyeing. It is characterized by its slightly redder shade than the standard 8GL Turquoise and by a slightly greater affinity for cellulosic fiber and by a greater stability of the shade to Fixogene TN Extra Liquid post-treatment, as well as greater wetfastness properties. It is stated that neutral dischargeability is very good and its reserve of the acetate is excellent. It also has good stability to resin aftertreatment. Refer to Technical Leaflet 320-E.

Dimacide Colors

A new line of plastosoluble acid colors specially designed for the dyeing and printing of polyamid. TLey are said to have the brightness and fastness of the acid colors with the dyeing properties of the dispersed, thereby reducing to a minimum the barre effects. It is claimed that they possess excellent compatibility among themselves and their lightfastness is that of the best standard acid colors. They are said to have good wetfastness properties which may be improved by a Depsoline 2P treatment which does not affect the shade nor is it affected by chlorine. They are recommended for bright, medium and light shades and may be used with Amichrome Light Colors. They may be applied by the Thermoset (pad thermofixation) method, as well as by all conventional methods. The following colors are currently available:

Dimacide Light Blue 2BL
Dimacide Light Blue JL
Dimacide Light Orange J
Dimacide Light Red 2B
Dimacide Light Scarlet R
Dimacide Light Yellow 3JL
Dimacide Light Yellow JRL

A number of these Dimacide Colors are suitable for printing and the Yellow 3JL and Yellow JRL, Orange J, Scarlet R and Red 2B are dischargeable in white.

Dimacide Light Yellow JRL

This new color is suitable for dyeing and printing. It is said to be characterized by extreme brightness, better coverage of barres than standard acid colors, good lightfastness and by its compatibility with the other Dimacide colors. It is recommended by the manufacturers for dark shades, in view of its excellent tinctorial value. Its wetfastness can be further increased with an aftertreatment with Depsoline 2P and formic acid. It can be printed with the standard acid color formula with an addition of phenol. Technical Leaflet No. 336-E is available.

Esteroquinone Light Black BRI

A new disperse color for the printing of polyester. It can be developed either by steaming for 30 min without pressure or by heat fixation for 1 min at 390°F, as well as by pressure steaming for 15 to 20 min at 275°F. It is said to be rated excellent to sublimation and very good at 30" at 400°F. Refer to Technical Leaflet No. 283-E.

Fast Black Salt K

This new color salt, suitable for dyeing and printing, is recommended by the manufacturers to obtain various shades of blacks with Naphtazols, more particularly Naphtazol A, RL, LT, BJ and SW, with the exception of Naphtazol J, JLE, 2JL and 4J. The shades obtained are said to have good fastness to light and washing, excellent fastness to chlorine and mercerizing and are dischargeable in white with a Rongeol C-potassium carbonate-anthraquinone paste formula. Refer to Technical Leaflet No. 337-E.

Heliasols

A new line of anthracenic dyes particularly recommended by the manufacturers for the dyeing of sports and hunting clothes. They are said to have good fastness to light in medium and heavy shades and to be suitable for dyeing by continuous methods, pad-jig and pad-steam. These colors are readily pasted at low temperatures. They are particularly interesting in view of their low cost. The following Heliasols are presently available:

Heliasol Blue RE Flake
Heliasol Brown R
Heliasol Khaki 3R
Heliasol Olive R
Heliasol Yellow JCL

Naphtazol BJ

An addition to the range of Naphtazol colors, which in conjunction with Fast Scarlet 2JS Base (similar to Azoic Diazo Component 3) yields copper shade which it is necessary to submit to soap-off after dyeing. (Refer TI-172). It is more specially recommended by the manufacturers to obtain shades of maximum fastness to light and wet treatment by using the following bases:

Fast Orange JS Base
Fast Red D Base
Fast Red AL Base
Fast Red JL Base
Fast Red B Base
Fast Orange JR Base
Fast Scarlet J Base
Fast Garnet JBS Base
Fast Scarlet 2JS Base

Full information regarding the affinity curve of Naphtazol BJ may be found in the #61-E Naphtazol Shade Card. Technical Leaflet No. 308-E is available.

Neutrogene Black J

Described in Technical Leaflet 324-E, this is a member of the Neutrogene (neutral-aging) azoic dyestuffs. It may also be developed by acid aging. Recommended for printing cotton and viscose. If desired, the color can be developed in an acetic acid common salt bath. It is said to be an excellent fall-on black under reactive dyestuffs. Stability of the printing paste is said to be outstanding and similar to that of the other Neutrogene Colors.

Neutrogene Light Brown 4RV

Suitable for printing cotton and viscose. It may be developed by neutral or acid aging. It is printed from a formula including neutral sodium chromate. It is said to have very good wetfastness to light on cotton and viscose and the printing paste to have excellent stability. Illustrated in Technical Leaflet 338-E.

Nyloquinone Blue 3J

A new dispersed color for polyamid said to possess good light- and wetfastness properties. Technical Leaflet No. 312-E is available.

Nyloquinone Pink B

A new disperse color for the dyeing of polyamid fibers. It is particularly recommended for bright slightly fluorescent bluish pinks and is said to be characterized by good dispersion, good migration and exhaustion properties. It is particularly suitable for use as a self shade in combination with other Nyloquinone colors on polyamid woven and knitted goods. It does not change shade under artificial light. Technical Leaflet 297-E is available.

Nyloquinone Yellow 3R

Illustrated in Technical Leaflet No. 280-E, this is a new disperse color for polyamid which is suitable for self shades, as well as in combination with other Nyloquinone colors for dyeing browns and greys. It is said to be characterized by very good lightfastness and yield.

Solane Blue BJ Powder

This color is greener in shade than standard Solane Blue R. It may be dyed from a reduced bath according to the method described for the dyeing of cotton with vat dyestuffs, Shade Card #68-E, after pasting with Coptal BNA Powder or by impregnation on a jigger with caustic and sodium sulfide and hydrosulfite. It may be used on all types of cotton and viscose for obtaining medium and dark blues (work clothes). Technical Leaflet 325-E is available.

Solanthrene Brilliant Blue F-RCL Neopowder

An addition to the line of vat neopowders characterized by its very reddish blue shade. It is claimed to have excellent all-around fastness. It is stated that it is particularly noted for its very good fastness to chlorine and lower sensitivity to high temperature in a reduced bath. It is illustrated in Technical Leaflet 305 bis-E.

Solanthrene Brilliant Violet F-3B Neopowder

An addition to the line of water-dispersible vat powders, particularly recommended as a combination for reddish navy and blue shades. It has a fairly high rate of affinity, but its dyeing is uniform in function of temperature. It is said to have excellent general fastness and is less sensitive to water spotting than Vat Violet 1 (2R and 4R). Refer to Technical Leaflet 306-E.

Solanthrene Orange F-4R Neopowder

A new vat orange said to possess excellent light- and wetfastness properties and to be particularly useful either for self shades or in combination with browns for the production of reddish maroon, brick red, and rust shades. As all the neopowders, this color is a water dispersible powder which has nondrying, long storage, and uniformity from top to bottom of the drum, properties. Refer to Technical Leaflet 313-E.

Solanthrene Printing Brown 3R Paste Fine

This new vat brown is particularly suitable for the printing of large blotches. It is said to have over-all good general fastness and is suitable for drapery and upholstery fabric. In addition to cotton and rayon, this color is applicable to acetate rayon in pale shades. See Technical Leaflet 315-E.

Solanthrene Printing Grey 3BL Double Paste Optima

A homogeneous vat grey, extremely finely dispersed, which is said to give uniform prints even in pale shades on cotton and spun rayon. This color is comparable to Solanthrene Beige F-N Optima Paste. It is not sensitive to sunlight in the neutral state and it may be shaded readily with Solanthrene Beige F-N Optima Paste, compatible with this new grey in all proportions. Reference Technical Leaflet 316-E. This color is in a very concentrated form. It gives a flat navy said to possess excellent fastness to light in heavy shades and can be used as a base component for full shades of black. It is applicable on acetate rayon in pale shades on roller.

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GEIGY DYESTUFFS
Division of Geigy Chemical Corp
Saw Mill River Rd
Ardsley, NY

Irgalan* Dark Brown BRL

A new pleasing reddish brown shade possessing the fastness properties typical of the Irgalan color range. Recommended for wool and nylon, Irgalan Dark Brown BRL is said to be highlighted by excellent exhaustion, solubility, penetration and leveling qualities and good buildup to dark shades.

Reactone* Bordeaux BL
Reactone Navy Blue 2RL
Reactone Brilliant Orange 2GL
Reactone Brilliant Yellow 5GL
Reactone Yellow 2R 120%

Typical of the Reactone range of dyestuffs, these added colors offer the dyer and printer additional colors said to possess outstanding brilliancy, lightfastness from good to excellent, good penetration, simple application and exceptional tinctorial strength.

Reactone Bordeaux BL is said to offer excellent solubility in both printing and dyeing, easy wash off of unfixed dye, does not stain white grounds, fast to gas fading and to have excellent wetfastness and build-up.

Reactone Navy Blue 2RL can be applied by printing and pad-thermofix dyeing, as well as by single pad-steam, pad-jig and cold pad-batch application. It produces a bright clear reddish shade of blue or navy said to possess good all round working properties with build-up being one of its most unique qualities.

Reactone Brilliant Orange 2GL offers a distinctive yellowish shade of orange said to be characterized by very excellent solubility and high light resistance. It is recommended by the manufacturers for continuous or semi-continuous type application, such as thermofix and one bath pad-steam. It is also used in pad-jig and pad-batch dyeing.

Reactone Brilliant Yellow 5GL provides a bright greenish shade of yellow said to possess exceptional lightfastness. This prod-

*Registered trademark

uct's featured characteristic is its yield in pad-batch, exhaust and pad-steam application.

Tinon* Black MB Double Paste
Tinon Grey 2G Double Paste
Tinon Grey P2R Double Paste

Tinon Black MB Double Paste is an anthraquinone vat dyestuff developed primarily as an economical dyeing vat black.

Tinon Grey 2G Double Paste is a pleasing slightly greenish shade of grey recently added to an ever increasing range of vat dyestuffs. This product has a medium strike rate said to possess good level dyeing properties and excellent exhaust. It is recommended by the manufacturers for pigment-pad jig, pad-steam, continuous piece dyeing and for conventional exhaust techniques on yarn and packages.

Tinon Grey P2R Double Paste is an attractive reddish cast grey developed to augment a widening Tinon Grey range. This vat grey has a medium strike rate said to possess excellent exhaust and good level dyeing properties. It is recommended for all continuous and conventional application techniques.

Tinopal* RBNAD Liquid

A distinctive bluish cast optical whitener having the advantage of dyeing nylon levelly over a wide pH range. It is stated that this brightener was designed specifically for application in a scour bath thus achieving economy by eliminating the necessity for a separate operation.

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GENERAL DYESTUFF CO
A Division of General Aniline & Film Corp
435 Hudson St
New York 14, NY

Blancophor® AM-80

This is a new fluorescent brightener for acrylic fibers, offering a strong blue-white hue said to be of good light stability. The product is applied either in dope-dyeing of the fiber or in dyebath application to the fabric in the presence of 1% or less acetic acid. It is said to have good bleach stability.

Blancophor® CB-32

This is a new concentrated liquid brightener for cellulosic fibers. It is designed for dyebath and padding applications, and is said to exhibit outstanding acid stability. It is stated that the brightener is characterized by its unusual whitening ability, and by very level application in long liquors and freedom from tailing in padding operation.

Blancophor® MO-89

A new fluorescent brightener for polyolefin fibers; may be applied by addition to the melt or by exhaustion on the finished fabric in long-liquor application. Gives blue-white hue; is said to be bleach stable.

Blancophor® MS-31 - Liquid
Blancophor MS-72 - Powder

These two new textile and paper brighteners are substantive to cellulosic fibers. They are said to be moderately rapid in exhaustion and to be stable to acid pH. Suggested primarily for textile dyebath and paper beater application, they may be used with wash-and-wear finishes or in combination with wet-strength paper additives.

Chrysophenine YPD

This dyestuff has been especially standardized for the dyeing of paper, replacing earlier types offered by GDC for use on paper. The dye has been improved for both the solution-dyeing and dry-addition methods. It yields a medium yellow shade, said to be economical and lightfast, on both paper and board. In board manufacture it is nonburning.

Fastusol® Turquoise Blue LGP

New for paper dyeing is this special standardization of a familiar textile dye. The new standardization is suited to dyeing either sized or unsized stock, though in application to unsized pulp, a mordant, such as Solidogen® LT-13, is suggested for economical shades. The new dye is also suitable for application in connection with wet-strength resin finishes for modifying characteristics of the paper.

Genacron® Blue 3GL

This is a new disperse dye for polyester fibers, yielding greenish, dull shades of blue, said to possess very good fastness to light, washing, and sublimation. A good color value, the dye is said to build well and to be suitable for all the usual methods of application to polyester fiber. It is suggested as a shading component in dyeing navies, deep browns, and charcoals, where its green and dull shade in incandescent light counteracts the red flare of other blues and violets.

Genacron® Blue RL

Said to be characterized by its bright royal blue shade, outstanding leveling, and good shadefastness, this new disperse dye is unusually interesting for dyeing polyester fibers. It is one of the most versatile polyester blues, being suitable as a base for navies and blacks, as well as a component in light and medium shades of tan, blue, gray, etc. The dye builds well in all regular application methods and proves useful in dyeing blends of polyester and wool, especially in combination with Genacron Yellow 3GL and Genacron Cerise B.

Genacron® Cerise B

Produces bright bluish shades of red on polyester fibers and is said to exhibit very good shadefastness to light and to wet treatments. It is stated that this new rich pink is an exceptionally good level-dyeing color, suitable for aqueous carrier application at 208-212°F, pressure dyeing at 250°F without a carrier, or dyeing by the Thermosol process. The dye is suggested for yarns, stock, and piece goods, dyed as 100% polyester or in blends with wool and cotton. With polyester/cotton blends the most satisfactory results are obtained in light shades.

Genacron Developed Black DF

This stabilized azoic dyestuff is said to produce excellent neutral black shades on polyester fibers by simplified dyeing methods. It is stated that it features outstanding dispersion qualities, permitting dyeing in a single bath, followed by diazotization with minimum time and cost. Very good shadefastness is said to be obtained on all-polyester fabrics and on blends.

Genacron® Yellow 3GL Paste
Genacron Cerise B Paste
Genacron Blue 3R Paste
Genacron Blue 3GL Paste
Genacron Blue RL Paste

These products are the initial members of a range of Genacron dispersed paste brands, intended primarily for the Thermosol method of dyeing polyester fibers and polyester/cotton blends. These paste brands are said to exhibit excellent dispersing and nontarring properties, and to be free-flowing, pourable, and convenient in all application procedures. The paste brands are fully equivalent to their parent powder types in shadefastness, with the added convenience of easy handling, giving speck-free, high-quality paddings.

Genacryl® Blue BGLA

A bright royal blue for acrylic fibers, said to be characterized by excellent build-up, lightfastness, and wetfastness. Genacryl Blue BGLA gives its best yields and bath stability at pH values of 2 to 6. In blends of Orlon/wool and Acrilan 16/wool, the wool portion is left practically unstained. The dye is thus well suited for these blends where contrasting shades are desired. Excellent stability to prolonged boiling, with minimum staining of wool and cellulosic fibers, together with superior fastness, are said to give this dye unusual versatility for all acrylic fiber dyeing.

Genacryl® Blue RL
Genacryl Blue RGL
Genacryl Blue 5GL

These three new Genacryl dyes are quite similar in dyeing and fastness properties and vary mainly in the shades produced on acrylic fibers. Genacryl Blue RL yields a reddish blue, Genacryl Blue RGL has an intermediate shade, and Genacryl Blue 5GL offers a somewhat greenish blue. The dyes are said to be characterized by excellent fastness to light and to wet processing at all shade depths. Best application is in pH range of 6 to 9. Dyeings run below pH 5.0 have weaker, duller shades. Good building properties make these blues of special interest for floor coverings, men's and ladies' suitings, and dress goods. The slight staining of wool effects adds interest for knit goods, especially in blends of Orlon/wool and Acrilan 16/wool. All three dyes strip to a pale pink tint with Textone and formic acid.

Genacryl® Orange 3RL

Genacryl Orange 3RL yields a fairly bright, reddish orange shade said to be of very good light- and wetfastness for acrylic fibers. The dye is applied in a pH range of 3 to 8, as a self shade or as a shading component in dyeing grays, browns, and blacks. Genacryl Orange 3RL builds well at a medium to slow rate, is stable to prolonged boiling, and can be stripped fairly well with Textone and formic acid.

Genacryl® Violet RL

A reddish violet of good tinctorial value yielding shades said to be of exceptional lightfastness on acrylic fibers. Genacryl Violet RL can be used on Orlon or Acrilan where the highest lightfastness requirements have to be met. Such end uses as floor coverings, men's wear, and ladies' suitings are suggested outlets for the color. The wool portion of blends of Orlon/wool or Acrilan 16/wool is left sufficiently clean to make the dye interesting to the knitted sportswear and apparel wear.

Genacryl® Yellow RRL

This new cationic dye offers a reddish yellow shade said to be of outstanding lightfastness on Orlon, Acrilan, and other acrylic fibers and on Dacron 64 polyester fiber. It is stated that Genacron Yellow RRL has very good color value and excellent pH stability when applied as a self color. In combination with Genacryl Red RL and Genacryl Blue RGL, it yields light tans, blues, and grays said to be of highest fastness to light, with tone-in-tone fading. Suitable also for Orlon/wool and Acrilan 16/wool blends.

Indanthrene® Brilliant Orange GRP Powder

This anthraquinone product is a "straight", bright orange vat dye, supplied in a new powder form. It is characterized by its brilliance of shade, in which property it is claimed to surpass other vat oranges. The

*Registered trademark

dye has good working qualities, offering level shades and good stability in the leuco vat for shade consistency at elevated application temperatures. It is said to exhibit excellent fastness to light, washing, chlorine, and in other significant respects on cotton and rayon. Indanthrene Brilliant Orange GRP Powder is very suitable for dyeing cotton and rayon or blends of these fibers in all types of vat-dyeing equipment, including package dyeing in circulating machines where freedom from crossovers is essential to good results.

Indanthrene® Grey RG Infra Double Paste

This new vat dye is a "straight" color of the anthraquinone type. The dye yields a clean neutral shade of gray, of good utility as a self color or as a foundation for compound shades. Fastness to light, washing, chlorine is said to be very good. It is stated that shade leveling on cottons and rayons is very good, in a dye that is well suited to fast pastel tones or economical medium or full-depth shades. The dye is versatile and applicable on all types of vat-dyeing equipment, including package machines wherein its leveling tendencies prove to be an essential factor.

Methylene Blue Liquid

As the seventh addition to the line of liquid basic colors by GDC, this is the liquid form of the well-known Methylene Blue A Extra Conc. The new product is standardized at 200:100 versus the powder type, in the same shade. In paper dyeing these liquid basics are said to have shown such advantages as (1) reduced time spent in preparing stock solutions, (2) elimination of dusting, (3) volume measurement with accuracy, and (4) elimination of color specks from undissolved dye.

Rapidogen® Red LBB
Rapidogen Red LB

These stabilized azoic compositions in powder form are said to exhibit special value in printing brilliant bluish reds of high fashion interest on cottons and rayons. The prints are developed by acid aging, and this step is followed by rinsing and hot soaping to obtain best shade and fastness. Prints are said to have good all-round colorfastness, and to be especially interesting for dress goods and household fabrics.

Rapidozen® Red BN DBL SOLN

A new stabilized azoic composition in solution form, offering an attractive bluish red shade in printing cotton and other cellulosic fibers. It is stated that, featuring excellent money value and good colorfastness, particularly in medium to heavy depths, the dye is most useful for printing bright reds on cottons and rayons. It is applied by direct roller or screen printing methods, with development by acid aging only.

Rapidozen® Black GG Solution
Rapidogen Black JF Solution
Rapidogen Black GRW Solution

These stabilized azoic compositions present economical, attractive black shades for running high-quality prints on cottons and rayons. Including a bluish, a greenish, and a jet black in self shades, they are of greatest interest for printing deep blacks said to be of good all-round shadefastness. Applied by screen or roller printing, with development by acid aging only. Very good fastness to formaldehyde is claimed, giving suitability for use with pigment-containing resins that release formaldehyde in curing.

Stilbene Yellow 10GP

A new direct dyestuff yielding a bright greenish yellow shade on paper. It is used primarily for dyeing sized papers in clean shades of yellow and green from pastel to medium depths. Main features are said to be its shade and high color value. Stilbene Yellow 10GP is especially interesting in making lower grades of bond and register papers, as well as tablet papers, where its shade and working properties show to best advantage.

Supralan® Brown RB-CF

Outstanding tinctorial value on wool, silk, nylon, and acrylic fibers in a new, neutral-dyeing metalized acid dyestuff. Produces full, rich self-shades of chocolate brown or, in combination with other Supralan dyes, yields taupes, tans, and cordovans for many end uses, including upholstery, carpeting, and wearing apparel. Supralan Brown RB-CF is said to exhibit very good fastness to light, washing, and fulling. It is suitable for application to raw stock, slubbing, yarns, and piece goods, and is particularly useful for mixtures of nylon and wool or acrylic and wool in wearing apparel or floor covering, and of nylon and cotton or rayon in upholstery.

Supralan® Black GGL

A neutral-dyeing metalized acid dyestuff for producing full, bloomy blacks and gray shades on wool, silk, nylon, and other synthetic fibers. Supralan Black GGL is somewhat greener and jetter than the well-known Supralan Black NB-CF, especially when viewed under incandescent light. Dyeing and fastness properties are virtually alike, so that the new dye is an effective supplement to the older one.

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THE HILTON-DAVIS CHEMICAL CO
2235 Langdon Farm Rd
Cincinnati 13, O

Hiltamine* Arctic White Acid Stable

An optical brightener for use in direct padding, in resin finish formulations and in exhaust dye baths such as becks and package machine. It is especially suitable for whitening cotton, viscose rayon and resin finishing goods. It is supplied in liquid form for ease of handling. It is stable over a pH range of 2.0 to 13.0. It is compatible with starch, resins, soaps, nonionic and anionic detergents. Acid catalysts such as magnesium chloride and zinc nitrate are well tolerated making this product suitable for padding with most resins. It is stated that it reflects light in the neutral to blue range thereby imparting a very desirable hue to the fabric.

Hiltone*/Seabond* Brilliant Fuschia

A recent offering in the Hiltone (water-in-oil) series of resin-bonded pigments for printing of cottons, synthetics and blends. The heavy and medium shades give bright magentas or fuschias. The weak shades give brilliant pinks. It is stated that the lightfastness is excellent in all strengths and that the washfastness is excellent as well as its fastness to perchlorethylene dry cleaning. Its stability to sodium or zinc sulfoxlate formaldehyde makes it excellent for discharge printing. This color is also offered in the Seabond (oil-in-water) System.

Hiltone*/Seabond* Red DCX

A recent offering in the Hiltone (water-in-oil) series of resin-bonded pigment printing colors for application to cottons, synthetics and blends. In heavy and medium shades, it produces bright rich reds. In reduced strengths, bright clean pinks are obtained. It is stated that this color was developed for its excellent fastness to perchlorethylene dry cleaning and its excellent fastness to sodium and zinc sulfoxylate formaldehyde which makes it especially suitable for discharge printing. Hiltone Red DCX is said to have excellent washfastness and good lightfastness. This color is also available as Seabond Red DCX (oil-in-water) and as Skytone Red DCX for pigment padding.

*Registered trademark

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INTERCHEMICAL CORP
Color and Chemicals Division
Hawthorne, NJ

Aridye® Bright Vermillion (Patent Pending)

A new, unique resin-bonded pigment color formulated especially for fast-color printing cottons, synthetics and blends. It is applied to textiles in the form of a pigmented water-in-oil emulsion. It is stated that specific advantages of this new, resin-bonded scarlet pigment include the following: it makes possible the pigment printing of cleaner and brighter application prints . . . produces attractive pinks in long cuts . . . is excellent for brightening up reds . . . useful as a red component in blends wherever cleanliness and brightness are important requirements. It is claimed to be excellent for discharge printing maintaining exceptional brightness even when used with three pounds per gallon of sodium sulfoxylate formaldehyde. Also, it is said to provide excellent resistance to caustic cut-out in plisse work. Aridye Bright Vermillion has no prototype; it is stated that there is no other color like it. The pigment employed was developed by Interchemical. It is said to provide lightfastness which meets normal dress goods requirements and excellent fastness both to repeated washings and vigorous drycleanings.

Interchem* Hisperse* Dyes

A new class of disperse dyes. They were developed originally for use in pad dyeing synthetic fabrics, and are now being employed successfully on a commercial scale for processing acetate, triacetate, and polyamide fabrics. Among the advantages cited for the use of these dyes in pad dyeing synthetics include the following: many fabrics can be dyed in the greige, eliminating a separate boil-off operation; simultaneous scouring and development of the final shade is carried out later in jigs, boxes, or other suitable equipment; dyeing time is reduced which results in increased production; also, reduced processing often results in improved hand; shading from selvage to selvage and from end to end is minimized; when properly applied, there is no tailing off of shades; seam bar marks are virtually eliminated; excellent penetration is obtained on tightly woven fabrics; minimizes surface dyeing. It is stated that, because of their unique dispersion and excellent all-round dyeing properties, Interchem Hisperse Dyes have also been found advantageous for processing acetate, triacetate, and polyamide fabrics and blends by conventional dyeing in jigs, becks, and open Burlington Beam Units.

Following is a list of the Interchem Hisperse Dyes now available in commercial quantities:

Interchem Hisperse Yellow GH
Interchem Hisperse Orange 4RH
Interchem Hisperse Scarlet BH
Interchem Hisperse Red RH
Interchem Hisperse Pink BH
Interchem Hisperse Violet 2RH
Interchem Hisperse Green-Blue ALFH
Interchem Hisperse Blue JH
Interchem Hisperse Brown JH
Interchem Hisperse Navy NH
Interchem Hisperse Black BH

Interchem Hisperse Dyes are marketed in a dry, dedusted, concentrated powdered form. In addition to the colors listed above

*Trademark of Interchemical Corp

a number of others are now being developed for inclusion in this series.

* * *

C ITOH & CO (AMERICA) INC
320 Park Ave
New York 22, NY

Daitopher AN

A fluorescent whitening dyestuff for acrylonitrile fiber, which has been newly placed on the market by Daitoh Chemical Industry Co, Ltd, Japan. Among similar fluorescent whitening dyestuffs for acrylonitrile fibers, Daitopher AN is said to be conspicuous in its brilliant whiteness and excellent fastness to light, washing, perspiration and chlorine. Especially, in comparison with similar products, lightfastness is said to be the most distinguished characteristic of Daitopher AN. It is claimed that materials which are finished with Daitopher AN always maintain original brilliance, while materials dyed with similar products generally will change into yellowish or yellow-brown after fading. It is further claimed that whitening effect can be quickly and easily achieved. Moreover, the whitening effect is said to be quite the same to any materials, fiber, yarn or cloth.

Daitoh Azoic Colors of Dispersed Type

When excellent fastness, brilliance and eecnomy of cost are required for dyeing of polyester, acrylonitrile, acetate and triacetate fiber, Daitoh azoic colors of dispersed type from orange to black are claimed to be most recommendable. Because of the easiness of dyeing and excellent fastness, Daitoh azoic colors of dispersed type are now enjoying a wonderful reputation among the dyeing works of the world, it is stated. Daitoh azoic colors of dispersed type reportedly can be safely applied to any methods of high temperature, carrier or normal-pressure dyeing. The dyeing effect is said to be always the same to any form of material.

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H KOHNSTAMM & CO, INC
537-555 Columbia St
Brooklyn 31, NY

Certified FD&C Alumina Lakes

A new line of certified FD&C Alumina Lakes has been added. These are the so-called Hi-Dri Lakolenes where the moisture content has been reduced to a maximum of 5%. It is stated that these products are certified for use in or on foods, drugs and cosmetics and are recommended for decorative coatings and inks for products that come in contact with food.

Hansa Yellows) / B3120, B3121, B3122

These products are red shades equivalent to Hansa Yellow G with somewhat greater strength. It is stated that they are easily dispersible and have good light stability.

B3132 Transparent Benzidine Yellow

A red shade benzidine yellow said to be of high transparency and good light stability.

B3137 Transparent Rubine

This is a resinated rubine toner which is said to exhibit excellent transparency, light stability and to be easily dispersible. It is recommended by the manufacturers for use in nitrocellulose lacquers and has no bleed in dry cleaning solvents.

KOPPERS CO, INC
Chemicals and Dyestuff Division
Pittsburgh 19, Pa

Amacel* Black A1B

A one-bath develop black for acetate, nylon and triacetate, especially designed for package, beam and jig dyeing. It is said to produce a fast, jet black of good fastness to crocking. Diazotization is carried out in same bath, or in second bath without intermediate rinse.

Amacid* Black ECW
Amacid* Black NCB
Amacid* Black HB

Economical acid dyes for dyeing wool in raw stock, yarn or pieces. These dyes are said to possess high tinctorial value and to exhaust from a strongly acid bath.

Amacron* Orange SF
Amacron* Orange RF

Two bright orange dyes for polyester fibers said to possess very good fastness to light, washing and perspiration. Both are said to have excellent stability to sublimation and to exhaust uniformly from a carrier dyebath and build up to full deep orange shades. Stain on wool is moderately light. They may be applied by pressure dyeing methods or heat-cure. As the names suggest, Amacron Orange RF is a redder shade.

Amanil* Supra Brown 8RL

Bright red brown direct dye said to possess excellent lightfastness and suitable for resin aftertreatment either with or without copper-complex dye fixatives. Washfastness is improved with dye fixation and with resin aftertreatment. Acetate is tinted, nylon stained. Solubility and level dyeing are said to be excellent. Suitable as brown, or as red shading component in mixtures.

Amanil* Supra Yellow GFC

A resin-fast yellow said to be of high tinctorial strength and possessing outstanding fastness to light. Shade is a bright greenish yellow. Amanil Supra Yellow GFC does not stain acetate fibers. It is said to retain lightfastness after resin treatment and to be an excellent base for bright greens.

Amanthrene* Navy Blue 2B Double Paste

A direct dyeing vat navy blue which is said to possess high fastness to chlorine, peroxide, mercerization, washing and wet processing. Amanthrene Navy Blue 2B Double Paste is economical and builds up into full greenish navy. Fine particle size adapts this color for yarn dyeing. It is stated that color levels well and exhibits excellent penetration.

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ORGANIC CHEMICAL CORP
84 Valley St
East Providence, RI

Orcochrome Printing Brilliant Red GSS, Yellow R, Blue BB, Brilliant Blue B, Brilliant Cyanine R

This range of primary colors has been produced primarily for the printing of cotton piece goods. They are said to offer brilliancy of shade, good washfastness to AATCC #3 wash test and can be applied with the conventional methods, working very well with the rapid aging procedure.

Orco* Pigment Yellow G, Yellow 10G, Orange G, Scarlet B, Scarlet R, Red B, Red 2R, Blue B, Green B

This range of pigment colors is recommended by the manufacturers for use in printing inks, waxes, emulsion paints based on polyvinyl acetate, and coatings for leather. They are said to be characterized by a very good resistance to water, very good fastness to light, good resistance to mineral oil, castor oil, dibutyl phthalate and organic solvents generally.

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PUTNAM CHEMICAL CORP
Charlotte, NC

Lumatex* Pigments

These pigments colors, supplied in finely dispersed and highly concentrated aqueous pastes are designed for use in the newly developed Lumatex FCP pigment pad dyeing system. It is stated that the Lumatex FCP pigments incorporated with the system yield deeper and brighter shades when applied to cotton, viscose and many of the man-made fibers and are found to possess outstanding fastness to washing, light, perspiration, chlorine and dry cleaning. It is reported that major advantages of the Lumatex FCP colors in conjunction with Lumatex Binder F, Fixapret CP Liquid, and DCY have been the superior running properties, negligible tendency to build-up on drying equipment, and the resultant soft full hand of the finished material. The Lumatex pigments available are as follows:

Lumatex Yellow G
Lumatex Yellow 1815
Lumatex Yellow R
Lumatex Brilliant Yellow RR
Lumatex Brilliant Orange G
Lumatex Scarlet B
Lumatex Brilliant Red BB
Lumatex Brilliant Violet R
Lumatex Red Violet R
Lumatex Blue B
Lumatex Blue 3B
Lumatex Blue G
Lumatex Blue R
Lumatex Yellow Brown G
Lumatex Brown R
Lumatex Dark Brown T
Lumatex Green B
Lumatex Grey B
Lumatex Black T

Palanil* Red 2B

This controlled fine particle-size Palanil dyestuff augments the existing Palanil line by furnishing a bright, clean red shade which is said to possess excellent light, wash and sublimation fastness properties, on polyester fibers. Palanil Red 2B is of special interest for use by the thermosol method and can find extensive use in the dyeing of the many synthetic fibers.

Palanil* Red 3BF

This new bluish shade of red, another member of the Palanil micro-fine dispersed dyestuff is said to exhibit outstanding fastness to light, wash and sublimation making it particularly suitable for thermosol dyeing. Palanil Red 3BF was developed for the dyeing and printing of polyester fibers and is said to be very versatile in method of application whether by carrier or high temperature.

Palanil* Yellow 3G 100%

A bright, new, and outstanding dispersed yellow of the Palanil micro-fine series said to be found especially satisfactory for carrier, high temperature and thermosol methods of application to polyester fibers. It is claimed that this clean, greenish yellow produces excellent build-up and level dyed shades by all normal application procedures that meet maximum fastness requirements particularly for light and sublimation.

*Registered trademark

*Patent

Palanil Yellow 3G 100% can be effectively employed as a self shade or with true blues to produce popular bright greens, also when used in selected combinations is said to meet menswear, draperies, and rainwear fastness requirements.

Palanthrene* Colloisol Paste "FC"

The Palanthrene Colloisol Paste "FC" are a new series of controlled fine particle size vat dyestuff found especially suitable for continuous piece goods dyeing. These free-flowing, low-migrating Palanthrene colors are said to yield minimum migration with complete dyestuff particle penetration of the goods. The water-thin viscosity of these "FC" pastes make them extremely versatile to handle. It is stated that the Palanthrene Colloisol Paste "FC" colors have been found of exceptional value in the printing and package dyeing methods of application.

The colors available in the "FC" line are as follows:

Palanthrene Orange RRT Colloisal Paste FC
Palanthrene Golden Orange G Colloisol Paste FC
Palanthrene Red FBB Colloisol Paste FC
Palanthrene Blue BCA Colloisol Paste FC
Palanthrene Dark Blue BOA Colloisol Paste FC
Palanthrene Navy Blue TRR Colloisol Paste FC
Palanthrene Navy Blue TRRP Colloisol Paste FC
Palanthrene Olive MW Colloisol Paste FC
Palanthrene Olive Green B Paste FC
Palanthrene Olive T Paste FC
Palanthrene Grey CL Colloisol Paste FC
Palanthrene Direct Black RBU Paste FC
Palanthrene Violet FFBN Colloisol Paste FC

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ROMA CHEMICAL CORP
900 Passaic Ave
East Newark, NJ

Romadye

Black RK	2730	Orange RO	2220
Black R5K	2704	Orange R40	2210
Black R5K	0-189	Orange ROL	2230
Blue RBLN	2400	Red RDS	2360
Blue RBG	2410	Red RR2B	2340
Blue, Copen	2430	Red RR3B	2350
Blue RBN	2440	Red RRS	2310
Blue RBN	2460	Red RR2B	2320
Brown RWC	0-68	Violet RVR	2800
Brown RWR	2610	Violet RV2R	2810
Brown	0-174	White RH	2001
Green RGA	2520	White RH	0-191
Green RGB	2510	Yellow RYG	2111
Green RGK	2530	Yellow RYG	2114
Grey R2K	2730	Yellow RYG	2116
		Yellow RYR	2130

New code numbers have been assigned to the Romadye color line, which represents a wide coverage of the spectrum in resin-bonded oil-in-water pigments colors. New shades have been added to the line, which is being further expanded. Romadyes are successfully screen or roller printed on natural and synthetic fibers and blends. It is stated that excellent fastness properties consistent with the character of the printing ink are obtained with proper curing time and temperature as required by end use of the printed goods.

Romadye Black R5K 2704

A strong black in short cuts which may be used to make a suitable grey. This is said to have excellent wash, dry cleaning and lightfastness, and crock resistance. It is stated that an outstanding feature of this product is its good running qualities on the print machine.

*Patent

Romadye Black R5K 0-189

A strong black said to possess excellent fastness to wash, dry cleaning, light and crock resistance. It is stated that this black will give satisfactory fastness properties even at reduced temperatures, or shortened or flash curing methods. This product has excellent running properties.

Romadye Brown RWC 0-68

Romadye Brown RWC 0-68 in short cuts is a desirable chocolate shade. This blended color is said to show excellent washfastness, and will not sublime or change shades when calendered.

Romadye Brown 0-174

Romadye Brown 0-174 has been especially formulated for discharge and application printing. It is said to have excellent wash and crock resistance properties. It is claimed to be economical against other available browns suitable for discharge.

Romadye Orange ROL 2230

Romadye Orange ROL 2230 is said to have excellent fastness to washing, and better fastness to light than Orange RO 2220 or Orange R40 2210. It may be used as a self shade or for enhancing lightfastness in blends.

Romadye Whites 2001 & 0-191

These whites are fully discharged from gum thickeners or oil-in-water discharge emulsion systems. They are said to have excellent running properties, will not dust or powder off the print, and are nonyellowing with heat.

White 2001 is further said to have excellent hiding power when applied to dyed grounds and to have very good wash and dry cleaning properties.

White 0-191 shows exceptional brightness when printed on white grounds. The brightness is said to be retained even after washing and dry cleaning and good coverage to be exhibited when printed over dyed grounds. A soft, natural hand will be retained even on napped or piled fabrics.

Romadye Yellows RYG 2111, 2114, 2116

These are strong, bright, and economical. They are said to have excellent fastness to washing and may be used satisfactorily for discharge and plisse printing. 2111 is greenest in shade in long and short cuts. 2116 is slightly redder in short cuts than 2111. 2114 is slightly redder than either, and is noticably faster to light than 2111 or 2116.

Romasol Red SRB 4331

A resin-bonded pigment color of the water-in-oil emulsion type. This red has a bluish cast and is said to possess excellent all-around fastness properties. Its lightfastness even in pastel shades is claimed to be exceptional.

Romasol Yellow SY2G 4131

A resin-bonded pigment of the water-in-oil emulsion type said to possess good fastness properties.

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RONA PEARL CORP
East 21st at East 22nd St
Bayonne, NJ

Pearl Pigment Powder

A non-lead synthetic pearl pigment in dry powder form. This product has been produced to fill the demand for a dry powder which would readily disperse in various thermoplastic and thermosetting resins. Heretofore this product has been supplied either in paste dispersions in plasticizer or solvent concentrates or precompounded as a master batch into specific resins. It is stated that this non-lead synthetic pearl pigment, designated NLD, is free of all solvents, plasticizers, resins and other vehicles, is heat stable, nontoxic, and has a high degree of luster and brilliance and a comparatively low degree of sulfide stain. Concentrations of between ¼ to ½% are said to produce excellent pearl effect. In many instances this product can be used by simple tumbling with clear or colored molding resins and then directly molded without pre-compounding. Optimum pearl luster and brilliance is however obtained with pre-compounding and in a Banbury, on a roll mill or in an extruder.

Synthetic Pearl Pigment Series 320

This product is claimed to have the lowest degree of sulfide stain of any commercially available synthetic pearl pigment. Other outstanding properties are claimed to be its excellent high heat stability, luster and brilliance. It is available as a concentrate dispersed in dioctyl phthalate and vinyl solution for use in vinyl film and coatings. It is stated that this product has met with enthusiastic acceptance in the vinyl industry due to the aforementioned outstanding properties and very low cost.

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SANDOZ, INC
61 Van Dam St
New York 13, NY

Chloramine Fast Yellow 2GG

Bright, greenish, direct yellow for coloring paper and pulp. It is said to be bleachable and fast to alkali and water.

Cuprofix Black C-FBL Pat

Homogeneous, after-coppering direct black for fashionable bluish blacks on cellulosic fibers. Very good lightfastness is claimed. Stable to resin finishing, and suitable for high temperature dyeing. High solubility makes it suitable for padding. It covers dead cotton, and dyes level on barre viscose. Good reserve of small acetate effects.

Drimarene Yellow Z-5GL p a f

Brilliant fiber reactive yellow, said to possess very good lightfastness, even after resin finishing, and excellent fastness to washing. May be printed or padded. Suggested for dyeing of grounds for discharges, as it is white dischargeable.

Drimarene Bordeaux Z-BL p a f

A deep blue-red reactive dye which can be used for maroon and brown shades, in printing or padding.

Drimarene Navy Z-2RL p a f

Rich, reddish shade of blue; fiber-reactive, for printing or padding. In heavy percentages it is particularly useful for economical navies. In lighter depths it can be used for bright royal blues.

Drimarene Orange Z-2GL p a f

Fiber-reactive dye for printing or padding. Bright, yellowish; said to be lightfast. Very little shade change or loss of lightfastness when resin finished. Excellent wetfastness is claimed as well as easy rinsing of unfixed dye.

Drimarene Golden Yellow Z-R p a f

Brilliant fiber-reactive yellow for printing or padding. Reddish in shade; good build-up; does not stain the ground color or white area during soaping, even when printed at twice the standard depth.

Foron Red FL Ultra-Dispersed Pat

Disperse dye, extremely fine particle size, for dyeing polyester fibers, acetate, and tri-

acetate. A true, full red said to possess all-around fastness properties. Suitable for high temperature dyeing.

Foron Rubine GFL Ultra-Dispersed

Disperse dye said to possess all-around fastness properties. Extremely fine particle size. Recommended by the manufacturers for use on polyester fibers, acetate, and triacetate. Suitable for high temperature dyeing.

Foron Scarlet BWFL Ultra-Dispersed p a f

Disperse dye, bluish scarlet in shade. Very good fastness to light is claimed. Extremely fine particle size. Recommended for polyester, acetate, and triacetate fibers. Suitable for high temperature dyeing.

Foron Navy BRL Ultra-Dispersed p a f

Disperse dye which gives bright, reddish navy blues. It is said to be particularly good on polyester fibers because of its all-around fastness properties. Suitable for high temperature dyeing. Its wetfastness and fastness to sublimation are claimed to be especially outstanding. Very fine particle size.

Foron Navy 2GL Ultra-Dispersed p a f

Disperse dye for polyester fibers. Bright greenish navy. A homogeneous dyestuff which is said to possess good all-around fastness and good dischargeability. Very fine particle size. Suitable for high temperature dyeing.

Foron Yellow Brown 2RFL Ultra-Dispersed Pat

Disperse dye recommended by the manufacturers for tan or brown shades on polyester and polyester/wool blends. Very fine particle size. Suitable for high temperature dyeing.

Foron Black 2BL Ultra-Dispersed p a f

Disperse dye for use on polyester fibers. Good all-around fastness properties are claimed. Very fine particle size. Suitable for high temperature dyeing.

Lanasyn Carbon BL p a f

Level dyeing 2:1 metal complex dye. It is stated that it has excellent fastness to light and its properties meet requirements for men's wear fastness.

Lumicrease Dark Brown 3LB Pat

Said to be extremely lightfast, homogeneous direct dye. Fastness to light is unaffected by resin finishing. Working properties include low salt sensitivity, freedom from sensitivity to hard water, and level dyeing. It is stated that it has excellent fastness to washing and water spotting when aftertreated with Cuprofix #52 or Sandofix WE.

Xylene Brilliant Blue 5GM
Xylene Brilliant Green 3GM

Two acid dyestuffs with outstanding brilliance of shade for wool, nylon, or heat textured nylon. May be used for brightening of chrome dyeings, or dyed neutral. A superior degree of fastness to fulling, washing, sea water, and perspiration is claimed.

Printofix-O Pigments

Printofix O-series are a line of oil phase pigment printing colors in which the brightness and low crocking properties of water phase colors are said to be combined with the excellent running qualities of oil phase colors. Print paste viscosities are uniform in deep and light shades alike. The following colors are offered:

Printofix Blue	OG
Printofix Green	OB
Printofix Navy	OB
Printofix Orange	OR
Printofix Orange	OY
Printofix Red	OB
Printofix Red	OY
Printofix Scarlet	OY
Printofix Yellow	OG
Printofix Yellow	O2G

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THE SHERWIN-WILLIAMS CO
Pigment Color & Chemical Division
260 Madison Avenue
New York 16, New York

Kemprint "D" Colors

These are a newly completed series of water dispersible pigment colors designed for printing by the oil-in-water emulsion method in conjunction with Kemprint "D" Extenders and Kemprint "D" Binders. These colors in the prescribed system are said to possess excellent runability during printing, such as easy to manage blanket washing and curtailment of printing roll tarnish. Pattern appearance is said to be improved by exceptionally sharp marks and unusual sound coverage. It is claimed that fastness performance exceeds the conventional since color selection can produce the maximum. The Kemprint system tolerates 6 oz/gal sodium hydrosulfite, thereby permitting its use in selected discharges, or, printing alongside aniline blacks and azos.

Kemprint Scarlet 2YD
Kemprint Red 2BD
Kemprint Red HD
Kemprint Orange YD
Kemprint Orange RD
Kemprint Yellow 3D
Kemprint Yellow RD
Kemprint Green GBTD
Kemprint Green OD
Kemprint Navy Blue AD
Kemprint Blue 2GD
Kemprint Blue LD
Kemprint Red Violet KD
Kemprint Red Violet YD
Kemprint Red Violet AD
Kemprint Violet NBD
Kemprint Brown BCD
Kemprint Black 3FD

* * *

SOUTHERN DYESTUFF CO
Division Martin-Marietta Corp
P O Box 10098
Charlotte 1, NC

Sodyesul* Liquid Orange RDCF

A new sulfur dyestuff in liquid ready-to-dye form that is claimed to be brighter than any sulfur brown previously made. It is said to possess excellent level dyeing properties and to be equally suitable for yarn or piece goods dyeing by any procedure. The fastness to light and washing is said to be good.

Sodyesul* Liquid Yellow GLCF

A bright sulfur yellow in ready-to-dye liquid form that is particularly useful for dyeing fabrics that are to be resin finished. It is stated that the shade is practically unaffected by most crease-resisting formulas and that its fastness to washing when unfinished is only fair but is excellent when resin finished or aftertreated with copper.

Sodyeco* Printing Brown 5RP Paste (U. S. Patent 2657112)
Sodyeco* Printing Orange RDP Paste

Two new brighter additions have been made to the Sodyeco printing colors; the Brown 5RP is a very bright red-brown shade and the Orange RDP a yellow shade of orange. Both may be printed from the usual glucose-carbonate formula or from a regular vat formula using an alkaline carbonate and sodium sulfoxylate. Both are said to possess better than average fastness to light for sulfur dyes.

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VERONA DYESTUFFS
Springfield Rd
P O Box 385
Union, NJ

Astrazon Golden Yellow GL

Represents a new cationic dyestuff said to be of high tinctorial power recommended for dyeing and printing acrylic fibers. It is stated that it possesses excellent fastness to light and very good wetfastness properties.

Astrazon Red F3BL

Represents a new cationic dyestuff for acrylics which is said to possess excellent penetrating and leveling powers lending itself to the dyeing of delicate pastel fashion shades. It is also recommended by the manufacturers for printing of bright shades of red and pale pinks possessing very good fastness to light.

Isolan* Brown RLS, Isolan Brown BLS and Isolan Dark Brown RL

Represent three new and homogeneous neutral-dyeing premetalized dyestuffs. They are claimed to be outstanding due to their very good lightfastness, excellent general fastness properties, good level dyeing properties and short dyeing time. It is stated that there is no change of shade to red under incandescent light. All three types possess very good solubility. They can be used alone or in combination with other Isolans on wool, nylon and silk.

Isolan* Navy Blue RRL

A new premetalized dyestuff said to possess excellent solubility and good leveling properties. Isolan Navy Blue RRL is claimed to exhibit outstanding lightfastness along with excellent general fastness properties.

Pharmasol* Black ENF Double

An azoic printing black said to possess very good fastness to formaldehyde rendering it suitable for pigment fall-ons and resin finishing. Pharmasol Black ENF Double blends-off to a neutral shade of grey.

Resolin Blue GRL

Represents a dispersed dyestuff for the dyeing of polyester fibers. This product is particularly suitable for economic navy blues, blacks and dark browns. It is stated that, due to its excellent dispersibility, Resolin Blue GRL is especially suitable for package dyeing. It is said to possess very good fastness to sublimation in both light and heavy shades also good fastness to light and wet processing. This product is also suitable for high temperature dyeing.

Veranthrene* Brilliant Violet E5R Powder Ultrafine

A new homogeneous level dyeing vat violet said to possess good all-round fastness properties, including fastness to water spotting. Veranthrene Brilliant Violet E5R is of special interest due to its unusual bright shade. It is stated that, owing to the extremely fine dispersion and uniformity of the dyestuff pigment, Veranthrene Brilliant Violet E5R Pdr Ultrafine can be applied on all conventional dyeing equipment.

*Registered trademark

TEXTILE CHEMICALS

AMALGAMATED CHEMICAL CORP
Ontario & Rorer Sts
Philadelphia 34, Pa

Evenate T-6

A dyeing assistant for use in minimizing barré defects in the dyeing of knitted fabrics. It is said to be very effective with both acid colors and neutral dyeing acid colors and to yield clear bright shades and afford excellent leveling action.

Nionine S-5

A combination nonionic-cationic scour for use in the washing of sweaters. It is said to afford a high degree of detergency and to have the advantage of adding softness to the sweaters in a one-bath operation.

Resin VF-41

A copolymer resin for use in fabric finishing where a high degree of flexibility is required. Films of this resin are said to exhibit good water as well as oil resistance. It is supplied in stable emulsion form.

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AMERICAN CYANAMID CO
Organic Chemical Division
Dyes Department
Bound Brook, NJ

Calco Dyeing Assistant ACD

Said to be a highly efficient retarder for use with basic acrylic dyes which require the use of such assistants to produce level and evenly exhausted dyeings.

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AMERICAN CYANAMID CO
Organic Chemicals Division
Textile Chemicals Department
Bound Brook, NJ

Aerotex® Antistatic CSN Conc

A solution of a cationic organic compound which is said to provide excellent antistatic effectiveness on textile fabrics even at low relative humidities. The product is further said to impart negligible color to fabrics and to have a minimum tendency to discolor under high temperature drying or storage conditions. It is useful in facilitating textile finishing operations where cloth ordinarily has a tendency to build up charge such as on contact with rolls, guide bars, spreaders and stacking or storage equipment. It is stated that annoying static charge is reduced in cutting and sewing operations, in display areas and ultimately in consumer use—for wearing apparel or for decorative fabrics such as curtains, upholstery or carpeting. It is conveniently applied by padding or spraying, followed by drying. The antistatic effect is diminished when the treated fabric is washed; it is said to have good durability to dry cleaning. This agent is effective when applied as a self-finish or as an after-treatment on resin-finished fabrics.

Aerotex® Reactant 1 and Aerotex Reactant 2

These are newly developed, nonresinous products which produce finishes which are said to possess on cotton fabrics high wet and dry wrinkle recovery, durability to washing, and low chlorine retentive and nonyellowing properties. These reactants have been designed to provide a balance between wet and dry wrinkle recovery which is said to enable the finished fabric to be drip or tumble dried after washing, with a maximum resistance to wrinkling. Fabrics properly processed with these products are further said to be free from undesirable side effects such as odor development or color change. It is stated that the high quality finish obtained by the use of these reactants is obtained at relatively low add-ons due to the high efficiency of these products.

Aerotex® Sta-Tuff* Resin A, Aerotex Sta-Tuff* Accelerator B

These products are used to obtain the Cyana® Sta-Tuff* finish which minimizes the decomposition of cellulosic textiles by microorganisms. Fabrics are padded through a solution of Aerotex Sta-Tuff Resin A and Aerotex Sta-Tuff Accelerator B, then wet aged at room temperature. It is claimed that, after eight weeks' or more soil burial or outdoor exposure, properly treated fabrics will retain 80-100% of their initial tensile strength.

The Cyana Sta-Tuff finish is said to maintain the original tensile strength of the untreated fabric, with no odor development and a minimum change in hand.

Cyanatex® Softener C

A cationic, tan paste. It is claimed to be outstanding as an antistatic lubricant on synthetic fibers, even at relatively low concentrations. It can be used as a nondurable antistatic softener for fabrics and as an exhaustible softener for rinse bath application on cotton fabric or yarn packages. It is stated that, this product, used in the recommended concentrations, is not corrosive to equipment or fiber, and in most cases should not interfere with subsequent application of sizes, dyes or other finishes. Such finishes are said to be quite resistant to discoloration by heat or aging, will not volatilize at normal drying temperatures and will resist odor development and attack by mildew or bacteria.

Cyanatex® Softener RW

A soft, anionic paste which is said to provide both softening and rewetting characteristics at low concentrations on both cellulosic and synthetic fabrics. It is stated that this combination of properties recommends Cyanatex Softener RW for use as a towel finish and as a pretreatment on goods to be subjected to compressive shrinkage processing. No added rewetting agent is required. It is further stated that this product is compatible with most anionic and nonionic agents and has a high salt tolerance, even at elevated temperatures. When used with resins it should be applied as an after-treatment. It is reported that the product does not appreciably discolor white fabrics, and resists scorching as well as yellowing from chlorine bleaching. It does not vaporize at normal drying temperatures and thus is said to give less condensation in tenter frame housings and loop dryers than most other softeners.

Juvenon ** Soil Retardant No. 8

A homogeneous white dispersion which is claimed to be an improvement over earlier types in that it is noncrystallizing at low storage temperatures and is pumpable at normal operating temperatures. It is reported that it retains the following advantages of earlier Juvenons:

1. Retards soiling of rugs made from man-made and natural fibers.
2. Produces a soft hand.
3. Has little or no effect on lightfastness of dyes.
4. Keeps rugs and carpets cleaner and brighter between regular cleanings.
5. Is relatively simple to apply.
6. Does not discolor fabric, decrease wear life nor increase flammability.

* * *

*Trademark
**Trademark of Mohasco Industries, Inc

ANTARA CHEMICALS
A Division of General Aniline & Film Corp
435 Hudson St
New York 14, NY

Alipal® EO-526

An anionic surfactant of the sulfated alkyl phenoxy-poly (ethyleneoxy) alcohol type. It is said to have strong detergent, emulsifying, and wetting properties; suitable for use in alkaline systems. Used as a base for stable heavy-duty, all-purpose liquid detergent cleaners.

Alipal® RC-335

An anionic surfactant—the ammonium salt of sulfated alkyl phenoxy-poly (ethyleneoxy) ethanol—for use as a base in making opaque liquid detergents for fine fabrics, especially those of synthetic fibers. It is said to have excellent wetting and emulsifying properties. Product is supplied as a clear, slightly viscous liquid.

Ganalok A-14

A 39% active, aqueous solution of 2,2′-sulfonyldiethanol. This is a reactant finish which is claimed to impart outstanding wash-and-wear properties to cellulosic fibers and fabrics.

Gantrez AN

Poly (methyl vinyl ether/maleic anhydride). This water-soluble polyelectrolyte is available in three molecular-weight ranges. It is stated that typical applications where it has proved effective are in durable fabric finishes, nylon warp sizes, printing emulsion vehicles, glass fiber finishes, and as a dyestuff receptor.

Igepal® CA-620

A nonionic surfactant of the alkyl phenoxy-poly (ethyleneoxy) ethanol type, said to possess detergent, emulsifying, and wetting properties. Used as a water-soluble, low-temperature detergent base for metal- and acid-cleaning compounds. Suitable as an emulsion detergent for fine fabrics.

Igepal® CA-720

A nonionic surfactant of the alkyl phenoxy-poly (ethyleneoxy) ethanol type. It is said to have superior hard-surface detergency and aqueous solubility at high temperatures and to be stable to strong acids and many alkalies. Used for heavy fabric scouring; good rinsability. Also used in hot-cleaning and electrolytic cleaning systems.

Igepal® CO-897

Wetting, detergent, and emulsifying agent, used as dispersant, dyeing and carbonizing assistant, and antistatic agent. Stable, heavy-scouring detergent base material.

Polectron® 130 — vinylpyrrolidone/ethyl acrylate
Polectron 430 — vinylpyrrolidone/styrene
Polectron 450 — vinylpyrrolidone/styrene

These water-emulsion products, the first in a series of copolymers of vinylpyrrolidone and various comonomers, are said to be

exceedingly stable, multi-purpose emulsions of moderate viscosity. It is stated that their unusual adhesive, dye-receptive, and film-forming properties suggest their evaluation in a number of different applications. Forming anion-active emulsions of moderate viscosity, the Polectron products are said to exhibit excellent freeze-thaw and shear stability, as well as unusual acid and salt tolerance. They form tough, dye-receptive, adhesive films said to possess good light stability and solvent resistance. Water resistance is increased by heating. Their compatibility extends to starches, resins, waxes, and inorganic salts, in addition to their tolerance for difficult chemical and physical conditions. Polectron copolymers serve a number of purposes in textile and nontextile processing, such as binders for nonwoven fabrics, glass-fiber sizes, adhesives and coatings for textiles, paper, glass, metals, and plastics. When formulated with other resins and latices, they can be expected to contribute the special properties inherent in these new materials.

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APEX CHEMICAL CO, INC
200 S First St
Elizabethport 1, NJ

Flameproof #232

A powdered flameproofer, readily soluble in water; especially designed for blends of cellulosic and synthetic fibers including napped fabrics. It is said to be highly scorch resistant.

Flameproof #462

A durable liquid flameproofing agent especially designed for acetate. It is stated that it exhausts on to the fiber from the dyebath and is durable to dry cleaning and laundering.

Larsynol #362

Claimed to be a very fast wetting and rewetting agent which does not break down in boiling caustic soda solutions. Very low, weak foam, making it applicable for pressure equipment as well as conventional procedures.

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ARNOLD, HOFFMAN & CO INC
55 Canal St
Providence, RI

Ahcol* 775
Ahcol* 775C

These are high quality finishing oils which impart a soft, full hand to cellulosic fabrics. They are recommended by the manufacturers as pure finishes where good draping and softening are required, or for providing softness with fullness in weighted or off-the-loom finished fabrics.

Ahcol 775C, a modification of Ahcol 775, is designed to eliminate the need for a rewetting agent in the finishing of medium and heavy weight cottons prior to compressive shrinkage operations.

Ahcovel* NW

A reactant softener for resin finishing of cellulosics. Ahcovel NW is a weakly anionic, pourable liquid which disperses easily in cold water for addition to the resin bath. It is said to have excellent pad bath stability, and to be compatible with most resin bath additions. It is said to be the most durable softener for resin finishing available. It is claimed that ten launderings in an automatic washer did not affect the hand or wrinkle recovery of the treated fabrics, and tear strength was only slightly decreased.

*Registered

Base 100

A 100% nonionic textile softener concentrate which can be used to prepare inexpensive softeners for cotton and synthetic fibers, yarns, and fabrics. Softeners prepared from Base 100 are said to have excellent compatibility and outstanding resistance to scorching and chlorine retention. Base 100 is supplied as a waxy solid.

Base 600

A 75% concentrate from which inexpensive cationic softeners can be prepared merely by dissolving Base 600 in hot water. These softeners are said to have high scorch resistance and good compatibility with most thermosetting resins and catalysts. They do not contribute to chlorine retention damage. Base 600 softeners can be applied by pad or batch techniques to synthetic or cellulosic fibers.

Base 700

A 97% concentrate from which cationic softeners said to be of good quality and very low cost can be prepared by dispersing the base in hot water. It is stated that these softeners are effective on cotton, wool and synthetics and can be applied by any conventional method, as pure finishes or in conjunction with thermosetting and thermoactive resin baths. They are said to have good compatibility characteristics, good scorch resistance, and relatively high resistance to chlorine retention damage.

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ARKANSAS CO, INC
P O Box 210
Newark 1, NJ

Dyasist #25

Recommended by the manufacturers as a dyebath assistant for eliminating or minimizing the barre effect which occurs in dyeing nylon tricot and other nylon filament fabrics when acid colors are used. It is effective on both nylon 6 and nylon 66, provided that the dyestuffs used are carefully selected for the type of nylon involved. Dyasist #25 is anionic in nature, neutral in reaction, and is said to be outstanding in leveling and retarding properties. It is stated that it is highly stable under the conditions of dyeing and that it is resistant to mild acids, salts and hard water. A partial list of suitable dyes is available, and information in this regard will be furnished on request.

Dyasist #486

Claimed to be a superior leveling and retarding agent for use in dyeing woolen fabrics and yarns. It is mildly cationic in nature and neutral in reaction. It is particularly applicable where acid dyes requiring sulfuric acid are used and in such cases, is said to produce extremely level and uniform dyeings. It may also be used, it is said, with most milling colors with excellent results. In addition to its use as a leveling agent in dyeing, Dyasist #486 is recommended by the manufacturers for stripping dyed material before redyeing.

Para-Dri® B Conc

A concentrated water repellent composition consisting of a high molecular weight resin complex. It is particularly adapted for application to cotton fabrics of all types. It is said to be highly durable to washing and dry cleaning, and to require the use of high temperature curing and a catalyst to obtain maximum durability. It is claimed that, in addition to its outstanding water repellent properties, it imparts a high degree of softness to the fabric, which is durable to multiple washings. Also, it has value as an extender for fluorocarbon oleophobic finishes, thereby imparting both durable water repellency and oil resistance. Para-Dri B Conc is compatible with most urea-formaldehyde and melamine-formaldehyde resins, without adverse effect on the water repellent properties. In applications where a firm hand is required, the necessary amount of such resins may be added to the bath to produce the required finish.

Paramine® LT

A liquid cationic finish which is recommended by the manufacturers for application to all types of fabrics containing both natural and synthetic fibers. It is particularly adaptable for use in hosiery dyeing machines. It is said to produce an excellent degree of softness, and to provide good surface lubrication. One of the chief advantages of Paramine LT is that it dissolves readily in water at room temperature and does not require a premix in hot water. It is stated that, when applied to white or pastel shades, it does nor cause discoloration under normal conditions and, besides producing an outstanding soft finish, it is easy and economical to use.

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ATLANTIC CHEMICAL CORP
153 Prospect St
Passaic, NJ

Atlantic Visgum A

A new printing and dyeing thickener, Atlantic Visgum A is a fine pale yellow powder readily soluble in cold or warm water, stable to acid, alkali, and bacteriological decomposition. It is useful for additions to pad liquors as well as to printing gums. Best results are obtained when Atlantic Visgum A is used alone, but it may be used to advantage with and will mix perfectly with starch, trag, British gum, or alginates. It can be used for printing azoics, vats, naphthol-salt combinations, aniline black, and dispersed dyes; also for discharge work, for printing fiber-reactives, chromes, pigments, and as an emulsion additive.

* * *

ATLAS CHEMICAL INDUSTRIES, INC
Chemicals Division
Wilmington 99, Del

G-3634

A 100% active quaternary ammonium derivative antistatic agent for synthetic fibers and wool.

* * *

ARMOUR AND CO
Industrial Soap Department
1355 West 31st St
Chicago 9, Ill

Velva-Soft-G®

A fat-derived cationic textile softener, incorporating an active bacterial static agent designed to produce fabric softening, lint suppression, and antibacterial activity in finished fabrics. The finishes are said to provide a soft, lofted, lustrous handle to woolens, rayons, and many synthetic fabrics. These finishes are believed to be stable, non-discoloring, and durable. The antibacterial principle is such as to induce inhibition and control of bacterial and fungal organisms which come into contact with fabrics. Application baths are completely stable over long periods of time.

THE ATLANTIC REFINING CO, INC
Chemical Sales Department
260 S Broad St
Philadelphia 1, Pa

Ultrawet* 68KN

A custom blend of nonionic and anionic surface-active agents. This product finds application in scouring, dye levelling, and processing of textiles.

* * *

BERKSHIRE COLOR & CHEMICAL CORP
P O Box 388
Springfield, Mass

Antifoam ST-44

A highly effective silicone base antifoam developed for the control of foam in all aqueous systems. It is said to show excellent foam suppression over a wide range of pH values. It is stated that actual plant trials have found it to be exceptionally effective at a pH of 8 to 14. It is further stated that it shows excellent stability in water dispersions and that temperatures have no effect on its antifoaming ability. It is reported that it has found wide use in the textile industry in the control of foam in all dyeing operations, as an additive to print pastes to reduce excessive foam and in the reduction of foam in all scouring processes and wet finishing operations. For initial evaluations it is suggested that ½ part of Antifoam ST-44 be used per 1000 parts of foaming system. The concentration is then adjusted up or down by trial until optimum performance is obtained.

Anti-Stat SF-#111

This has been designed to minimize the accumulation of static electricity in a wide range of modern fabrics such as nylon, Dacron, Orlon, Dynel, acetate, wool and silk. Cationic in nature, it is compatible with cationic, nonionic, and many anionic finishes. It is stated that, although no one product has been found to be completely effective in eliminating static electricity build up on all fibers, Anti-Stat SF-#111 when used in concentrations from 0.5% to 3% shows excellent results on most of the resistant fibers. It is claimed that, in addition to excellent antistatic properties, Anti-Stat SF-#111 also reduces dust and lint pickup on dark colors, lubricates textile fibers, and exhibits top softening properties on many fabrics. It is also recommended by the manufacturers for use on resin-treated fabrics where resins increase the static buildup on the material.

Beralene CN-#79

A protein material which finds its principal use as a strong protective colloid in stripping baths and dye baths. In the dyeing of animal fibers, it is used for the protection of the fibers from the strong chemical action of acids or alkalies used in the dyebath. In cotton dyeing, it is said to be an excellent levelling agent. A concentration of 3% to 5% on the weight of the fiber is generally recommended for this purpose. For best results Beralene CN-#79 should be thoroughly dissolved in the dyebath before the dye and salts are added. It is stated that the tendering effect that often occurs during stripping operations can be greatly minimized or eliminated through the use of 3%-5% of Beralene CN-#79 in the strip bath.

Berapon DR-#66

A cationic surface-active agent of the quaternary ammonium compound type, this product was developed as a dye retardant for the cationic (basic) dyes currently being used to dye Orlon. When added to the dyebath it is said to promote level dyeing by decreasing the rate of exhaustion of dye onto the fibers. For light pastel shades 5% of retarder on the weight of the fiber is usually recommended and 3% is used on medium shades. For heavy shades (3% or more) 1% will suffice. In addition to its dye retardant properties it has also found wide use as an antistatic agent. It is stated that it will reduce or eliminate electrostatic charges often encountered in textile processing. Generally used in a concentration of .5% to 1.5%, it is reported that it was found to be a suitable antistatic agent for acetate, cotton, Dacron, Darvan, Dynel, nylon, and Orlon.

Berkopon LF-#67

A nonionic, very low foaming, wetting agent designed for use where only a minimum amount of foam can be tolerated. It is said to be completely stable to practically all chemicals used in textile wet processing operations. It is stated that it is completely soluble in water in all proportions and at all temperatures. It is claimed to be an excellent scouring and wetting agent for all textile fabrics and yarn. It is reported to be particularly effective as a penetrant and leveler in the processing of textiles of all types. The product is unaffected by metallic salts, lime soap or hard water, and it is claimed to be highly effective over the entire pH range. Free rinsing is said to make Berkopon LF-#67 invaluable to the textile industry.

Beron D-52

An efficient new nonionic synthetic detergent and solvent said to possess excellent wetting, penetrating, emulsifying and dispersing properties. It is further said to be resistant to variations in pH and mineral salts commonly found in hard water. Designed primarily for textile processing application, Beron D-52 is said to have proven to be an effective scouring agent, removing impurities such as oil, grease, graphite, sizing, natural waxes and gums from both natural and synthetic fibers. Spots and stains may be removed by direct application to the stain and allowed to remain until matter is loosened sufficiently to proceed with regular scouring. In fulling operations, it may be used in addition to soap. One (1) pint per piece of lightweight goods or one (1) quart per piece of medium or heavyweight goods produces much improved results. It is stated that Beron D-52 produces soft and lofty fabrics by removal of soap, soil and all traces of processing chemicals and is stable at all temperatures and high pressures.

Tar Remover WF-#100

A blend of self-emulsifying solvents primarily designed for the removal of tar or substances of an oily or asphalt nature. A water dispersion of from 1% to 14% is recommended depending on the amount of tar present. A water emulsion is said to be stable for days. In fulling operations, it is used as needed in conjunction with fulling soap or synthetic wetting agents and the required amount of alkali. Removal of tar from other fabrics is effected by immersion of the goods into a "de-tarring solution" composed of 12%-14% Tar Remover WF-#100 and 1½% caustic soda at a temperature of 125°F. Tar spots may also be removed by direct application to the spot and allowed to remain until the tar is loosened sufficiently. Scouring, soaking, or rinsing will then remove the spot.

BRYANT CHEMICAL CORP
6 North St
North Quincy 71, Mass

Carrier RW

A highly concentrated carrier for disperse dyes on Kodel and blends of other fibers with Kodel. It is said to impart excellent color yields, brilliance, and to be free from unevenness. It is readily removed in the normal afterwash recommended for carrier-dyed fabrics.

Corduflex

This material is a softening agent specifically designed for corduroys to impart a very full and bulky hand.

Fabrixol SC

This product is a highly concentrated modified urea-formaldehyde condensate. It is said to give a very full, soft hand with excellent crush resistance and is ideal for wash-and-wear finishes. It is said that the high concentration of Fabrixol SC makes it a most economical resin finish.

Mellene XX

A cationic polyethylene emulsion which is claimed to give the absolute maximum in softness and drape. It may be used with resins or as a topping softener. It is stated that it will not scorch or yellow, and will not affect lightfastness of delicate shades. Mellene is said to improve sewability and increase tear and tensile strength.

Nocresol

This is an anionic wetting agent for caustic solutions such as mercerizing, which contains no cresylic acid. Nocresol forms a stable solution in 25% caustic soda.

Onasof 100

A dry, 100% active nonionic softener that gives a very full, rich hand. It is stated that its concentration is such that it is extremely economical to use, and is completely compatible with most other finishing materials. It is said to be resistant to scorching, or yellowing, and may be used with magnesium chloride and zinc nitrate in resin catalyst formulations.

Saluwet

An anionic dyeing assistant recommended by the manufacturers for use with sulfur blacks and naphthols. It is stated that it will increase the bloom of the blacks and allow reductions in the concentrations of dyestuff necessary. It is also said to be an excellent rewetting agent, facilitating subsequent finishing operations. Saluwet is further said to be unaffected by acid or alkalis. Generally ½ of 1% based on the weight of the fabric is sufficient.

Vatemul B

Recommended by the manufacturers for the emulsion printing of both vat and discharge colors. It is stated that it gives extremely sharp mark and high color value with a minimum degree of penetration. Vatemul B is a low solids emulsion, and will, therefore, give very soft fabrics most receptive to subsequent finishing. This is an oil-in-water emulsion.

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BURKART-SCHIER CHEMICAL CO
1228 Chestnut St
Chattanooga, Tenn

Burkote A-589-DA

Splicing compound for tufting yarn, particularly intended for nylon and other synthetics. It is said to have high heat resistance and quick grab. One of a series of knot-less adhesives for textile yarns.

*Registered trademark

D-Mote FW
Modification of the original D-Mote to give fast wetting along with mote "explosion" and removal. An alkaline scourer of cotton textiles.

Duowet 1840
Latest addition to the Duowet series of sulfated esters. Primary wetting agent for any fiber or fabric. May be applied in beck, package, beam and continuous dyeing machines. Rewetting agent for shrinkage control. It is said to impart good hand and to be nonyellowing.

Fibacon 1804
Finish and size for cotton yarns. It is said to give a smooth free running yarn with improved luster to supply better tensile strength and to have no adverse effect on any yarn properties. Stable either wet or dry.

Fulgayne 1827
A new member of the Fulgayne series of weighting and filling agents. It is stated that it adds body and weight to knit or woven fabrics and does not adversely affect cloth subjected to dielectric testing.

Nonionic 8614
Ethoxylated alkyl phenol particularly well suited for woolen mill operation. It is said to be highly effective at low temperatures and to be an excellent penetrant, wetter, emulsifier and detergent.

Peem 11
Nonionic polyethylene emulsion. Nonyellowing softener used with thermosetting resins to maintain tensile and tear strength. It is said to have excellent resistance to most finishing agents.

Stabilizer C-167
For backing as well as saturation of knit goods to provide stabilization and shrinkage control. Nonchlorine retentive. It is stated that it has no adverse effect on tensile or tear strength and that aging qualities are excellent—suitable for white or dyed goods.

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CHEMICAL PRODUCTS CORP
Lackawanna and McBride Aves
Little Falls, NJ

Amino H
A cationic nonionic softener which is said to impart a durable high softening effect with minimum discoloring caused by high heat. It may be buffered on the alkali or acid side. It is specifically designed for use with amine formaldehyde resins, as a softener without imparing stabilization and crease resistance. It is stated that it is very versatile and compatible with nearly all finishing agents.

Chem C50
An anionic synthetic detergent of high active solids of sulfonated and ethoxylated aromatics. It is claimed to be a dynamic surface-active composition producing fast wetting and high rewetting properties. It is said to be an exceptionally effective scouring and cleaning detergent. It disperses and emulsifies the dyestuff. It is stated that it is stable and effective in hard water, electrolytes, acids, salt and alkalies.

Proteen 6L
A 100% nonionic surface-active compound of polyglycol cocoanut ester. It is said to be soluble in acids and alkalies and resistant to hard water. It is a dispersant of colors, tints, and pigments. It is further said to be an effective leveler of dyestuffs, an antistatic, a lubricant and antisoil agent of synthetic yarns and fibers. It is claimed to be an excellent emulsifying agent for oils, solvents and fats.

* * *

CIBA CO, INC
Fair Lawn, NJ

Arigal C®
The Arigal C Process is a new method for permanently rotproofing cellulosics which is claimed to be absolutely fast to water leaching and to improve resistance to weathering including photochemical degradation. It is stated that it has no effect on such properties as tensile strength, water absorbency, hand, etc and in most instances increases abrasion resistance. The process is applied with conventional textile equipment, can be run continuously and yarn or fabric may be treated. The effect is obtained by insolubilization of Arigal C in the fiber under wet curing conditions. This provides a permanent barrier against microorganisms and since no cross-linking of the cellulose takes place, the properties of the fiber remain unimpaired.

Fungitex 1165®
An organic mercury fungicide, especially developed for use with Arigal C, which is said to provide protection from mildew and to be very resistant to water leaching. It is insolubilized with Arigal C in the wet fixation process. It is stated that these two products make it possible to impart durable rot and mildew resistance to cellulosics.

Sapamine PA®
Claimed to be an extremely effective nonyellowing, cationic softener for synthetic fibers especially acrylics. Also effective on cellulosic and protein fibers. It is said to improve such properties as sewability, abrasion resistance and tear strength and has little or no effect on shade and lightfastness of dyed fabrics.

Zerostat C®
A nondurable, antistatic finishing agent for synthetics recommended by the manufacturers to produce an antistatic finish or to eliminate static in processing. It does not change the hand of materials to which it is applied. It is stated that it also reduces fiber slippage, is an aid in many processing operations, and can be removed by scouring if necessary.

ZerostatP®
A permanent, antistatic finishing agent for synthetics applied in conjunction with Catalyst 8065. It is said to be durable to repeated launderings and dry cleanings and to have little or no effect on the shade of dyed fabrics. Bath preparation is extremely simple, since the products are merely diluted with water to the required concentration.

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CINDET CHEMICALS, INC
P O Box 907
Greensboro, NC

Cindye B, Cindye BW, Cindye BT, Cindye BEM, Cindye Ester #1
Cindye B and the companion products are dye carriers for hydrophobic fibers, especially polyester and cellulose triacetate. They are completely new, the active carrier component being an aromatic ester containing no alkyl groups. The carrier ester contains no orthophenyl phenol or chlorinated benzenes.

It is stated that, unlike dye carriers containing orthophenyl phenol or chlorinated benzenes, the aromatic ester in Cindye B is nontoxic, does not effect the lightfastness of dyestuffs, does not steam distill, does not sublime, has almost no odor. The dyeing efficiency of the aromatic ester in Cindye B is claimed to be at least equal to that of orthophenylphenol which has been recognized as the most effective of dye carrier chemicals. It is a straw colored granular product, composed of 75% of the carrier ester plus emulsifier.

Cindye BW is a solid crystalline paste composed of 50% of the carrier ester plus emulsifiers and water.

Cindye BT is a straw colored liquid composed of 25% of the carrier ester with emulsifiers dissolved in toluene.

Cindye BEM is a snow white soft paste containing 25% of the carrier ester. It is most readily dispersible, forming a dispersion that is claimed to have unequalled stability. Level, perfect dyeings are said to be easily produced at an extremely low cost.

Cindye Ester #1 is the aromatic ester used in the above carriers and is offered for use by those who prefer to formulate their own carriers.

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CONTINENTAL CHEMICAL CO
195 21st Ave
Paterson, NJ

Conco AAS-25MI
A low cost all around emulsifier, scouring agent, and general detergent which may be chemically described as a blend of the sodium and triethanolamine salts of a sulfonated dodecyl benzene.

Conco AAS-35
Claimed to be a highly economical anionic, detergent, scouring agent, wetting agent, dyeing assistant and general emulsifier. This material may be chemically described as the sodium salt of a sulfonated dodecyl benzene.

Conco AAS-Special KD
A highly active blend of anionic detergents (90-95%) said to be particularly well suited for the emulsification of kerosene as well as aromatic hydrocarbons. 85 parts of kerosene and 15 parts of Conco AAS-Special KD produce a clear solution and a resulting stable emulsion. If desired, 5-15% water may be added to the oil phase without disturbing the equilibrium.

Conco Blanket Wash #10
A blend of organic detergents and solvents designed especially to remove print colors and pigments from blankets.

Conco Emulsifier DCS
A highly concentrated and versatile emulsifier of anionic and nonionic nature for hydrocarbons and mineral oils generally.

Conco Sulfate C
A longer chain alkyl sulfate with lower foam and similar dispersing characteristics than the C_{12} homologue. Primarily used for oil and water phase print dispersing systems.

Conco Sulfate WA Dry
A highly active (90-95%) sodium alkyl sulfate primarily used in the production of clears as well as oil and water phase printing systems.

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CREST CHEMICAL CORP
225-235 Emmet St
Newark, NJ

Azocrest 70
A clear 70% active liquid dyeing assistant and detergent of a polyoxyethylene glycol ester. This nonionic may be used as an

emulsifier for mineral oils, fatty acids and waxes as an acid—degreasing agent for wool and as a dyeing assistant for wool and poly acrylonitrile fiber blends.

Crestex Bleach Aid

A hetrogenous powder combination of organic and inorganic salts used as a gas (deodorizes) and corrosium retarding agent in sodium chlorite bleaching.

Crestomul T

A do-it-yourself type emulsifier for Dacron and polyester fibers dye-carrier chemicals. When used in the proportion recommended, this universal emulsifier disperses such carrier chemicals as methyl salicylate, o-dichlor benzene, o-phenyl phenol and butyl benzoate with excellent depth of shade and color yields. It is claimed that lower cost and better lot-to-lot color control are obtained when this product is used to disperse the carrier chemicals.

Crestonol

A 60% active clear, light colored, viscous liquid. It is the amine salt of an alkyaryl-sulfonate. This product is used as a scouring agent, dye assistant, wetting agent, emulsifier and dispersant for dyestuffs.

Crestonol Acids

A dark brown, opaque, 95% active, viscous liquid of chemicals of dodecyl benzene sulfuric acid. Crestonol Acids can be neutralized with the appropriate base to form the surface-active agent of the alkylaryl type. These compounds find wide acceptance as household detergents, industrial cleaning compounds, textile dyeing assistants, scouring agents and many other uses where surface-active properties are desired.

Crestowet 77

A 30% active straw colored medium viscous liquid of a sodium salt of a high molecular weight sulfated alcohol. This surface active agent is designed to meet industry's need for swift, thorough wetting, deep-down penetration, and is said to be a versatile, effective dispersant. It is stated that, when used in small quantities, Crestowet 77 greatly reduces the surface tension of water solution and is stable in varying degrees in acids, alkalies, salts and hard water.

Crestozyme

Claimed to be a standardized diastatic liquid enzyme preparation for desizing of starch sizes. Crestozyme is sold in high, medium and an economical strength concentration, and is soluble in water in all proportions.

Pyrocrest

An organo-phosphate compound said to possess excellent flame-retarding properties when applied to fabric in varying amounts from 10 to 30%. It will not cause effervescence or salt-brown on aging, and is said to impart a soft hand rather than the harsh, boardy hand often associated with most flame-retardants. It also has penetrating properties to assist in the impregnation of the fabric being treated. Pyrocrest works well on netting and pile-fabric made from both cotton or synthetic fibers.

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DE PAUL CHEMICAL CO, INC
44-27 Purvis St
Long Island City 1, NY

Anti-Foam DP

A white liquid readily dispersible in water. It is said to be a highly effective defoaming agent used in practically all phases of textile processing, such as dyeing in jig and package machines, and printing in which it will control foaming in the color pan without affecting the viscosity of the printing paste. It is reported that, in the scouring of nylon lace, Anti-Foam DP will prevent the floating of the lace, which is caused by excess foam. It has been used in mills in their latex backing formulae. It helps to obtain a more uniform pick-up.

Depcopal*

A 100% nonionic surfactant with excellent storage stability. Depcopal is used in desizing of cottons, kier boiling, scouring of wool, soaping of fast-color-dyed cotton and rayon, washing of yarns and piece goods. It is soluble in water in all proportions below 125°F. It is stated that Depcopal is equally effective in hard or soft water because it does not form salts with metal ions, that it can be used with either anionic or cationic agents and that it has excellent wetting and detergent properties.

Depcopon* SF

Claimed to be an excellent levelling and wetting agent that does not cause excessive foam. It is a very versatile product that may be used in pressure dyeing units for tricot or woven fabrics, as well as dye becks and paddle dyeing machines. It is used as an assistant in the scouring process. Because of its low-foaming properties, it is said to be excellent for use in enclosed dye becks and pressure dyeing units. It has a slight softening effect on fabrics. It is stated that it will help in preventing sharp creases, thereby reducing color marks which appear in high temperature dyeing and also in long dyeing cycles. Depcopon SF is said to be especially adaptable for use in Sanforizing and wetting out cotton piece goods prior to pad dyeing.

Depcoterge* D

A creamy white powder which is said to be a superior scouring agent and dyeing assistant with excellent foaming and wetting characteristics and emulsifying properties. It is stated that it is very stable under the most adverse conditions, such as hardness of water, strong alkalis, acids and oxidizing agents. It is claimed that it is extremely rinseable and has excellent detergent properties. It has found its widest use in scouring of all wools and synthetic fibers. It has also found wide usage in the dyeing of texturized nylon yarns such as Ban-lon, Tycora, Helanca, etc, as a levelling agent and as a barre preventative.

Palogen DP

Palogen DP has been specifically developed to insure level dyeing of knitted texturized nylon filament yarns, such as Ban-lon, Helanca, Tycora, etc, with acid dyestuffs. It serves primarily to overcome the barre effect caused by knitting or yarn irregularities or the uneven affinity of the dyestuffs. It is stated that it serves to enhance the migration properties of acid dyes and slows down the rate of exhaustion, thereby ensuring level dyeings.

Scour Base K

A specially formulated blend of emulsifying agents for the preparation of solvent scours, designed for the one-bath process of scouring and dyeing. It is used as an emulsifier for such solvents as kerosene, varsol, mineral spirits, etc. It is stated that Scour Base K and the proper choice of solvent, will prove highly effective in open box jig and enclosed pressure-dyeing machines. It has been used very successfully in the processing of badly soiled Ban-lon and other texturized nylon knitted fabrics. It is stated that it will readily remove stains and soils which have been set into the fiber during the pre-setting process.

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DEWEY AND ALMY CHEMICAL DIVISION
W R Grace & Co
Cambridge 40, Mass

Everflex CA

A new vinyl acetate copolymer emulsion said to be distinguished by its binding power and water resistance, and intended for textile sizing. The new emulsion is offered as an all purpose size to satisfy most requirements. It is stated that high binding power is assured by its small particle diameter and that package and mechanical stability are excellent and freeze-thaw resistance is outstanding.

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E I DE PONT DE NEMOURS & CO, INC
Organic Chemicals Department
Dyes and Chemicals Division
Wilmington, Del

Avitex* Y Conc Softener
Avitex* YM Softener

These are concentrated cationic softeners that are said to possess a high degree of effectiveness on all types of fibers. The YM type is especially recommended by the manufacturers for application to toweling, where it helps to produce a soft absorbent finish. The versatility of these products makes them suitable for application alone or with starches, gums and thermoplastic, thermosetting or thermoreactive resins. Fabrics treated with these products are said to show improved tear strength, napping properties and sewability. A moderate degree of antistatic protection is also imparted to hydrophobic synthetic fibers. It is claimed that excellent resistance to discoloration and odor development is shown by fabrics that have been treated with the softeners mentioned.

Alkanol* OA
Alkanol OE
Alkanol OJ
Alkanol OP

Nonionic surfactants which represent a group of products offering a wide range of surface-active properties to meet a variety of end use requirements. They are said to be efficient wetting, emulsifying, scouring and antistatic agents. The Alkanol nonionics also help reduce the static propensity of textile fibers. It is stated that these products have proved of value in the textile, leather, paper and other miscellaneous industrial fields.

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EASTERN COLOR & CHEMICAL CO
35 Livingston St
Providence 4, RI

Eccodacrol-800

Dye carrier for polyester fibers, said to give exceptionally good penetration and color depth and value on Dacron 64 and 54. Self emulsifying liquid product forms stable emulsions and no toxic vapor is liberated in dyeing processes. Suggest use at 3-4% on weight of goods.

Eccolube NP-75

An improved softener, especially designed for softening goods that are to be napped This softener is said to give the desired lubricity in the napping operation with no loss in softening and minimum of yellowing. This material is readily soluble in water at

*Trademark

*Du Pont registered trademark

100°-120°F for use in this temperature range.

Eccopel 55
An alkaline water repellent expressly designed for application to synthetics in conjunction with thermosetting resins and said to give excellent water repellency. This product contains no polyvalent inorganic salts and therefore is completely compatible with all anionic finishes and baths. Completely stable to storage and readily soluble at room temperatures, applied at 120°-140°F.

Ecco Printlube
A new and economical approach to textile printing lubricants. A printing aid for both roller and screen printing, useful with all types of printing and said to prevent "dryness", reduce foaming, minimize roller tarnish, and keep prints soft.

Ecco Retarder O-C
A more economical retarder for Orlon dyeing that is said to give full color value and level dyeings while retarding the dyeing rate.

Eccoscroop 230
A new approach to scrooping particularly adaptable to synthetics to give that "noisy crunch" often desired in scrooping. Material is a soft white viscous-liquid, readily soluble at 100°F and suggested use at 1-2%. On cottons 2% of the Eccoscroop 230 gives exceptional results.

Eccosoft PE-4
Polyethylene softener which is said to show unusual softening properties as well as other properties of abrasion resistance, improved tear tests, non-yellowing, and improved crease resistance. This softener contains no paraffin wax and is a new approach to modified polyethylene softeners.

Eccostat SK
Antistatic agent for processing synthetic pile goods in connection with water-repellency and finishing. It is said to exhibit good compatibility and outstanding control of static in processing work.

Low Crock 95-L
An efficient effective anticrocking agent applied in conjunction with resins as a finish to printed goods. This anticrocking agent is claimed to be particularly effective on heavy prints with dark colors that are susceptible to "crocking". It is stated that it gives no dulling of the prints and shows improved durability to laundering as well as improved crock resistance.

Metaglo 400
A metallic gold binder designed for the high speed roller printer who needs a quick drying binder. Metaglo 400 is said to keep "pick off" on dry cans to a minimum as the face of the fabric contacts cans in drying. Useful on other systems where quick drying is desired. Prints are said to give good brilliance with excellent durability to laundering and dry cleaning.

Metaglo CR-7
An inexpensive roller printing metallic gold binder especially useful in roller printing of absorbent paper and nonwoven rayon in decorative work. It is said to be especially adapted to high speed machines with complete ease of printing at these speeds.

Metaglo R-753
An improved metallic gold or aluminum binder designed especially for machine roller printing and is said to give outstanding brilliance, sharpness of prints, durability to laundering and dry cleaning, and to give completely trouble-free running.

EMKAY CHEMICAL CO
319-325 Second St
Elizabeth, NJ

Emkabond UR
A fiber-reactive, laminating resin adhesive for bonding urethane foam to fabric. It is said to show excellent resistance to washing and dry cleaning solvents. A viscous flowing fluid it is said to be noninflammable and can be mixed with water and readily applied.

Emkafix AD
An easy to use liquid which shows great promise as a "blocking" agent in combination fabrics. Where red acid dyeings of nylon or wool in these fabrics show troublesome staining on the other fiber components, it is said to be highly efficient in lessening this condition. It is also of interest in red acid dyeings in materially reducing staining of other fibers in the AATCC #2 wash tests.

Emkalite OC
A concentrated alkaline cleaner and stripper for use in removing resins, pigments, etc from pans, utensils and buckets. In powder form it is said to be highly efficient, to be readily diluted with water to use strength and economically suited for many cleaning operations.

Emkalon CP
A substantive softener in liquid form it is said to offer good lubricity with coating properties. It can be mixed with cold water, eliminating the need for heat in making up the finish. It is compatible with wash-and-wear resins.

Emkanol NCD-20, 30, 40, 50
A series of anionic sulfonate penetrants, stable in varying strengths of caustic. They are said to provide maximum penetration and wetting action in mercerizing caustic solutions. As these penetrants are cresylic acid-free, the waste problems caused by cresylic acid are eliminated.

Emkapon FX
This product is useful as a detergent in washing direct-dyed cottons and viscose rayons. It is claimed to be especially efficient in minimizing the bleeding of colors during the scouring operation.

Emkapruf OFL
An organic flameproofing compound in liquid form said to possess excellent resistance to yellowing under high heat. It is a free-flowing, viscous liquid which is said to have good compatability with many acrylate-based adhesives.

Emkaron N-25
A nonionic dispersant and retarder for vat dyeing and printing. May be used alone as an efficient stripping agent or with sodium hydrosulfite as a stripping assistant.

Emkasan QA-50
A quaternary ammonium compound for textile and industrial use as an algaecide, germicide, disinfectant and deodorizer. It is soluble in water and is said to offer efficient and economical control of most bacteria, fungi and algae.

Emkaterge JC-4
One-piece graphite remover in powder form, readily soluble in warm water. It is said to be particularly useful for cleansing nylon and Orlon lace.

Emkatex TAC
Specifically prepared as a penetrant and leveling agent for tape dyeing. It is stated that it disperses dye evenly, effecting a clean, level dye job.

Rexoclean 200 N
An all-purpose maintenance cleaner for removal of all kinds of soil except those requiring acid treatment such as scale and rust. It is stated that it is a good-sudsing, free-rinsing product, noninflammable in nature, that it cleans with speed and ease and that it is reasonably priced.

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FLAMORT CHEMICAL CO
746 Natoma St
San Francisco 3, Calif

Flamort TC Special
A fire retardant compound especially developed for flameproofing racing coveralls (cotton, gabardine or silk); also for work clothing, uniforms, cotton duck, drill. It is claimed that it is approved by state fire marshals, local fire departments, and the National Institute of Cleaning & Dyeing. It is stated that it will not affect tensile strength, color, or flexibility of cloth, and is nontoxic. Shipped as a dry powder which is mixed with water to prepare the flameproofing solution.

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FRANCOLOR INC
148 Hamlet Ave
Woonsocket, RI

Depsoline 2P
A new auxiliary product which is said to improve the fastness to water, washing and perspiration of acid, Dimacide Light and Diazol colors, dyed or printed on polyamid. It is also useful to improve the wetfastness of Amichrome Light colors on Banlon. It is applied from an acid bath and it is stated that it is possible to overdye articles already treated with Depsoline 2P without risk of precipitation of the dyestuff in the dyebath. It is further stated that Depsoline 2P does not cause any shade change, nor does it affect the fastness to light and, furthermore, the shade of the dyeings treated with Depsoline 2P is not altered when subjected to sunlight or weak chlorine. TDS-126/1 gives full details.

Texacryl A Powder
A new auxiliary recommended for use in the dyeing of acrylonitrile copolymer fibers. It is stated that it is possible to reduce the quantities of sulfuric acid required for the dyeing of these fibers with acid dyestuffs, chrome and inochrome dyes, when using Texacryl A Powder. It is said to improve the yield and increase the brightness of the Amichrome Light Fast Colors dyed at the boil on these fibers.

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GEIGY DYESTUFFS
Division of Geigy Chemical Corp
Saw Mill River Rd
Ardsley, NY

Irgasol* SW
A versatile leveling agent recommended by the manufacturers for use in acid wool dyeing. Although effective with all classes of acid and chrome colors it is said to be particularly well suited for producing uniform, level, well penetrated dyeings with milling and neutral dyeing premetallized dyestuffs applied in an acetic acid (pH 4 to 4.5) bath. Irgasol SW entered into the bath prior to the dyestuff forms a complex with the color which dissipates slowly as temperature rises.

*Registered trademark

THE GOODYEAR TIRE & RUBBER CO
Chemical Division
Akron, Ohio

New synthetic rubber latices are offered as follows:

Chemigum Latex 520

A medium nitrile product consisting of a carboxylic modified butadiene/acrylonitrile copolymer. Designed for use in nonwoven, abrasion-resistant coatings, textile inks, leather finishes and paper saturants and coatings.

Pliolite Latex 440 and 460

Carboxylic modified styrene/butadiene copolymers. They are designed for such applications as carpet backsizings, scrim adhesives, upholstery backing and paper saturants and coatings.

Pliolite VP-00

A vinyl pyridine/styrene/butadiene terpolymer latex. It is designed for cord adhesion to rubber in tires, conveyor belts, hose and other fabric reinforced rubber articles.

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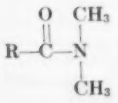
THE C P HALL CO
5245 W 73rd St
Chicago 38, Ill

Hallcomids



A unique class of disubstituted amides of short- to long-chain saturated and unsaturated fatty acids in which the hydrogens attached to the nitrogen have been replaced by methyl groups. Preliminary investigations indicate they would be useful in the following broad applications: solvents, solubilizers, corrosion inhibitors, surface-active agents, chemical reactants, reaction media and polar agents. Uses in the textile industry include: *as a solvent*—softeners, dye solvents, and spinning solvents; *as a solubilizer*—dyes, light stabilizers, and resins (wash-and-wear); *as a corrosion inhibitor*—water treatment; *as a surface-active agent*—foam control; *as a polar agent*—antistatic treatment; *as a reaction media*—reaction solvent in polymerization and then as a stable plasticizer; reaction media and catalysts for cyclization, alkylation, dehydrobromination, halogenation, phthaloylation, preparation of nitriles, organic acid chlorides, and organic isocyanates.

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HAMILTON CHEMICAL CORP
45 Andrews St, Dept D
Lowell, Mass

Hamco Low Crock 60

A 40% solids acrylic emulsion polymer designed to give outstanding dry and wet crock resistance. This polymer can be formulated into pigment printing pastes or padded onto dyed fabrics. Curing of the resin on the fabric is said to impart maximum washfastness and dry clean fastness.

Hanflex FA1 Flock Adhesive

A high viscosity acrylic emulsion polymer developed for use as a flock adhesive on apparel and woven goods. This product is said to give excellent wash and dry clean properties, U V resistance, and a soft hand. Hanflex FA1 is supplied at running viscosity with good leveling characteristics. It also offers a solvent-free system.

Hanflex FA2 Flock Adhesive

A high viscosity acrylic emulsion polymer similar in properties to Hanflex FA1 but designed for rigid or semi-rigid substrates such as vinyl, polyurethane, polystyrene, paper, etc. This product is said to be characterized by having excellent scuff resistance.

Hanflex T-11 and Hanflex T-15

Two of a series of self-crosslinking acrylic emulsion polymers. Supplied at 45% solids, these resins are said to offer maximum stiffness of hand, washfastness, and drycleanability. Hanflex T-11 is recommended by the manufacturers where nonwoven binders are required which must retain loft after high compression operations.

Hanflex T-40

A 45% solids, self-crosslinking acrylic emulsion polymer said to possess good softness, and maximum washfastness and drycleanability. This resin can be applied to a wide variety of fabrics and webs from cotton to synthetic blends.

Hanflex T-70

A 45% solids acrylic emulsion polymer similar to Hanflex T-40 but with extreme softness.

* * *

THE HART PRODUCTS CORP
1440 Broadway
New York 18, NY

Alkylene P

A complex phosphated wetting agent. It is said to possess good wetting properties in dilute caustic or acid mediums with low foam and good sequestering action. It, therefore, is highly effective in hard water and is recommended by the manufacturers for kier boiling, carbonizing, and general scouring.

Carbol A

An economical high active anionic-nonionic detergent in gel form. It is chemically stable to acid and alkali and recommended by the manufacturers for kier boiling, carbonizing, and general scouring of cellulosic and synthetic fibers.

Catylon OR

A 100% active solid wax cationic softener shipped in lump form. It is said to possess excellent substantivity to synthetic and cellulosic goods imparting a high degree of softness and lubricity along with good resistance to yellowing of white goods and minimum effect on lightfastness of color. The softener is compatible with all cationic and nonionic auxiliaries over a wide pH range, neutral or acid. For better handling, Catylon OR Paste, a 33-34% active paste, is recommended.

Cyclazone LCR

A completely water-soluble cyclic-modified carbamide resin. Its reactivity with cellulose is said to impart dimensional stability of excellent durability along with low chlorine retention. It is compatible with all types of water-soluble adjuvants.

Hartogum PC-90

A 60% active etherified starch with nondusting film-forming properties. When applied in conjunction with "wash & wear" resins, it is said to impart to the fabric good stiffening effects whereas the modification of this stiffening effect with a softener imparts to the fabric a full "mello" body. It is a paste readily soluble in cold water and compatible with most textile auxiliaries.

Hartostat H

A 60% active quaternized ethoxylated amine. It is claimed to be highly effective in eliminating or minimizing the accumulation of static charges on synthetic fabrics. It is stable in alkali and acid mediums.

Hartostat N

A 100% active nonpermanent nonionic antistatic agent. It is claimed to provide excellent resistance to static build-up on synthetic fabrics and is widely used where cationic antistatic agents are not desirable. It is stable in alkali and acid mediums.

Reginol 2563

A nonionic scouring agent. It is claimed to be a highly effective scouring agent recommended for scouring in conjunction with dyeing of Orlon and wool.

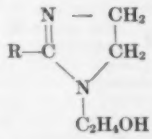
* * *

HODAG CHEMICAL CORP
7247 N Central Park Ave
Skokie, Ill

Amines

C-100 Series Amines

The C-100 series amines are high molecular weight, nonvolatile, oil-soluble, strongly cationic cyclic tertiary amine bases, described as 1-hydroxyethyl-2-n alkyl imidazolines with the following structure:



where the alkyl group "R" may be oleic (C-100-O), stearic (C-100-S) or lauric (C-100-L). C-100 amines are alkaline in aqueous systems and form salts with acids. They can be made to react to form quaternary ammonium compounds. It is stated that they are strongly adsorbed on textile surfaces and find use as antistatic agents, water repellents and textile softeners. They may also be used in resin coatings to improve the adhesion to fabric.

Antifoams

CO Fluids Silicone Antifoams

A series of polymeric syrup-like silicone fluids for use in non-aqueous systems; 100% active concentration, Hodag CO Fluids can be used "as received" or dispersed in a suitable organic solvent for foam control.

F-1 Silicone Antifoam

A translucent syrup-like fluid, effective in aqueous or non-aqueous systems at concentrations less than 10 parts per million; 100% active concentration, F-1 can be applied "as received" or dispersed in a suitable organic solvent.

F-2 Silicone Antifoam

A translucent syrup-like fluid, effective in aqueous or non-aqueous system at concentrations less than 10 parts per million; 100% active concentration, F-2 is said to be particularly efficient in systems where its water dispersibility improves antifoam efficiency.

FD-62 Silicone Antifoam

A creamy, white, 10% concentration emulsion, based on polymenic silicone fluids, FD-62 is free-flowing and readily dispersible and may be easily diluted to form a stable emulsion for addition to the foaming system at the required concentration.

FD-82 Silicone Antifoam

A creamy, white, 30% concentration emulsion, based on polymeric silicone fluids, FD-82 is free-flowing and readily dispersible.

FD-82 can be used "as received" or diluted to form a stable emulsion for addition to the foaming system.

PV-48 Antifoam

An especially compounded liquid antifoam designed to be used to prevent foaming of emulsion coatings based on acrylics, latex, polyvinyl acetate and others. Designed to be used "as received" or in the form of a dilute water emulsion, PV-48 is normally effective in concentrations of 0.1% by weight or less.

TBX Antifoam

An especially designed liquid antifoam and leveling agent for use in coating and adhesive systems, TBX has been found effective for systems based on:

1. Starches and dextrines
2. Natural proteins — casein, glue, soya
3. Synthetics — latexes, methylcellulose, polyvinyl alcohol, carboxymethyl cellulose.

Designed to be used "as received" or in the form of a dilute water emulsion, TBX is normally effective in concentrations of 0.1% by weight or less.

Nonionics

Hodag nonionic surface active chemicals do not ionize in solution but owe their surface active properties and solubility characteristics to the balance of hydrophobic and hydrophyllic groups within the molecule. The relative proportion and types of groups can be varied in an almost unlimited number of combinations. The products are classified as follows:

Glycerol esters
- Mono-di esters from the glycerolisis of edible fats and oils. Partial and complete esters of fatty acids.

Other polyhydric alcohol esters
- Partial and complete fatty acid esters of the following:
  - Diethylene glycols
  - Ethylene glycols
  - Methyl glucoside
  - Pentaerythritol
  - Propylene glycols

Polyglycol esters
- Methoxypolyethylene glycols
- Polyethylene glycols
- Polyglycerine
- Polypropylene glycols

Polyoxyethylene alkyl aryl ethers of varying ethylene oxide content.

These nonionic condensates are said to be stable over a wide pH range, to be stable in a hard or soft water or in the presence of electrolytes, to be compatible with anionics or cationics and to have a wide range of solubilities. The principal textile uses are as emulsifying agents for yarn lubricants, finishes, etc, dyeing assistants, wetting agents, fulling agents, softening or finishing agents, dispersing agents, stripping aids, and detergents.

* * *

INDEPENDENT CHEMICAL CORP
70-30 79th Place
Glendale, Brooklyn 27, NY

Indscour M

A blend of anionic and nonionic scouring agents. Indscour M is said to be an effective scouring agent for wool and other fabrics.

Spegogen P

A dyeing assistant for minimizing barré effect in dyeing caused by knitting irregularities. An anionic fatty derivative, Specogen P is water soluble and is said to possess good wetting properties.

Speco Softener N 30

A modified amide condensate that possesses cationic properties with good substantivity to Orlon. It is stated that it imparts to Orlon not only a high degree of softness and lubricity but also high temperature resistance to yellowing of white goods and minimum effect on lightfastness of color. The softener is a white paste and is compatible with all cationic and nonionic auxiliaries over a wide pH range, neutral or acid.

Speco Softener R-100

A fatty amine condensate. It is a non-yellowing softening agent for cellulosic fabrics. Compatible with nonionic and cationic finishes, R-100 is said to effect a full soft hand.

* * *

ISOCHEM CORP
221 Oak St
Providence 9, RI

Isokleen

A cleaner that is said to be unusually effective in floating off and thoroughly cleansing most organic or natural resins, coatings and colors and to make an unusually effective cleanser for paper mills, paper coaters, chemical processors and manufacturers, rubber plants, food processors and textile plants. It is said to have a high emulsifying ability for resinous materials and to be especially effective on acryilic and other water-dispersed resins and, it is claimed, not only easily dissolves them but because of its high flow-out rinses them easily away. It is stated that Isokleen should improve cleaning processing equipment and kettles and aid in cutting cleanup time. It is further stated that it will remove most water-soluble or dispersed resins, gums, starches, latex, grease, soot, oil and most types of stain or dirt. It may be used as a metal cleanser and is safe on aluminum, magnesium, steel, ceramic tile, linoleum, asphalt, concrete, wood, most paints and rubber.

Chemical Nature — Solvent loaded alkali buffered detergent blend.

Isonokurl 600

A low hydroscopic plasticizer for resins of all types, starches, casein, gelatine and most paper or textile resins. It is stated that it stays in finish permanently and will not strike through finish or leach out. It is claimed to drastically reduce and eliminate curl and help eliminate fisheyes and other paper defects. It is said to be unusually effective in paper coatings, textile finishing, worsted spinning or textile sizing. It is reported to have an excellent emulsifying stabilizing effect on resin latices and sizing baths. It is said to be noncrystallizing and nonfoaming.

Chemical Nature — A poly glycol 600 ester

Isonotac 50

Said to impart higher strength adhesion and tensile strength to acrylics, vinyl acetates and vinyl alcohols and to eliminate sticking on cans or equipment. Tensile strength improvement up to 15 to 20% have been reported.

Chemical Nature — Polyglycol high molecular weight ester.

Isopent 21

A nonionic penetrant with low foam and said to have excellent stability at high temperatures and high pressure and to be stable to acids and alkalis. It is stated that it is an excellent leveling agent, emulsifier, felt wash, solvent, wetting agent and cleanser in paper and paper coating operations. It acts as a stabilizer and wetting agent in aqueous latices, adhesives and coatings. As a high speed wetting agent in textiles it is claimed to improve wool scouring, kier boiling, boil-off or rayons or synthetics to act as a package dye penetrant, and to be effective in all types of pressure dyeing or continuous dye and bleach eliminating cross-overs and dye resist spots. It may be used as a general leveling agent and emulsifier for grease, oil and soils.

Chemical Nature — Tall oil ester.

ISO Safety Stripper

A solvent for urethane and other resins which is said to be nonvolatile, fast acting, effective and readily water soluble.

Chemical Nature — Furane ester.

* * *

KOPPERS CO, INC
Chemicals and Dyestuffs Div
Pittsburgh 19, Pa

Kayron Carrier*

Especially recommended by the manufacturers as an assistant in dyeing polyester fibers. It is a new solvent type, readily emulsifiable in water, and non-spotting. Kayron Carrier is said to minimize stain of dyes on wool fiber. It is stated that dyeings made with Kayron Carrier are clean and level and that color value is excellent.

* * *

LATEX SPECIALTIES
P O Box 595
Dalton, Ga

Super-Seal

Claimed to be a superior jute sealing latex compound adhesive for jute wrapping for carpet shipping and similar items, which is fast drying and instant bonding. It is used also for edge binding and seaming of carpets and is said to have special resistance to breakdown from copper and manganese usually found in jute. Available in gallons and drums.

Super-Splice

Claimed to be a superior latex splicing compound for Acrilan, filament nylon, other synthetic fibers, and cotton and wool. It is said to be especially soil-resistant. It is further said to make a strong durable splice, to set uniformly and to be very fast drying. Available in pints, quarts, gallons and larger quantities.

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LAUREL SOAP MANUFACTURING CO, INC
Tioga, Thompson and Almond Sts
Philadelphia 34, Pa

Antistatic Lubricant 1AL

A new antistatic agent said to possess good lubrication which is recommended by the manufacturer for use on synthetic fibers as a carding and spinning aid and as a renewable type antistatic agent. It is also useful on blends of synthetic and natural fibers. It is stated that it has been proven to be highly effective in small amounts and has shown very good results on polypropylene fiber. It is said to be highly resistant to the effects of aging and high temperatures.

Aquasan Z

A new improved renewable type water repellent recommended by the manufacturers for use on cotton and synthetic fabrics. It is a wax-zirconium type and is claimed to be highly effective in relatively small amounts and to show little or no tendency toward shade change, crocking, solvent ringing and other undesirable properties.

*Registered trademark

Retarder OA

A dyeing assistant and retarding agent for use in the dyeing of Orlon with basic colors. It is stated that its use will give good dyeing without danger of uneven shades and will assure uniform results from lot to lot.

Spinol WL

A wool and wool blend lubricant recommended by the manufacturers for use on raw stock to improve the carding and spinning properties of the fiber. It is a completely water-soluble product which is said to eliminate any danger of emulsion breakdown and to assure ease of scouring. It is stated that it possesses good antistatic value as well as excellent lubricating properties and will materially reduce the amount of fly and short fibers.

Yarn Finish CS

An improved yarn conditioning and lubricating emulsion suitable for application from troughs on cone winders. It is said to show improved emulsion stability and roller coverage and will enable high emulsion pickups with improved regain.

* * *

LENOX CHEMICAL CO
Printery St
Providence 1, RI

Lenoscroop 700

A pure white substantive cold water-soluble nonyellowing scrooping agent. It is said to offer a maximum crunch on synthetics, particularly acrylics, nylons and rayons for the felt and blanket trade. It is stated that the product will not affect dye shades and is preferably applied in the last rinse of the dyebath, although it may be padded.

Lenosoft 360

A liquid substantive cationic nonyellowing softener with cold water solubility, it is said to be particularly suitable for cottons and synthetics, especially acrylics. It is claimed that the product offers excellent results as a CRF (wash-and-wear) finish, for it has shown excellent softening properties and improved sewability.

Lensol W-30

A nonyellowing, nonionic antistatic spinning lubricant, it is stated that it will tolerate high percentages of acid making and is most suitable for goods carbonized in the grease, as well as acid fulled. The product is readily scourable, produces completely stable emulsions in cold water and is said to offer on wools and synthetics exceptionally fine carding and spinning yields.

Lensol 441

An antistatic, nonyellowing nonionic spinning lubricant, particularly suitable for wools and Orlon. The product is said to be readily scourable, produce stable emulsions in cold water and, in general, to be most versatile.

Lentex 550

An antistatic lubricant, containing no mineral oil, for coning of texturized and bulk yarns. It is said to be of low viscosity and to offer maximum static protection with low frictional properties. It is stated that it is highly scourable and definitely nonyellowing, and may be applied undiluted by trough and roll. It is further stated that it is particularly suitable for yarn which has to be rubberized, especially the bathing suit trade for it will not affect rubber adversely.

Non-Crock S-8

An aqueous resin emulsion anticrocking agent. It is used in aqueous pigment printing and is said to have shown excellent results in eliminating crocking and improving washfastness, especially on dark shades.

Retarder OR

A cationic-active retarder for use in Orlon dyeing. It is stated that it gives full color value and level dyeings while retarding the dyeing rate.

Synthospin

A nonyellowing 100% active highly antistatic lubricant for synthetics, containing no mineral oil. It is stated that it is noncorrosive, readily scourable and produces a clear solution in cold, warm or hot water in any proportions.

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LUTEX CHEMICAL CORP
P O Box 38
Tyner, Tenn

Lutex Penetrant — Scour PE

A synergistic blend of nonionic and alkylarylsulfonate detergents designed to afford the fastest wetting, scouring and dye leveling properties at the lowest possible cost. This product is said to be useful in wetting out for dyeing, soaping-off, kier boiling and bleaching assistant. Less than 1% (o w f) is adequate for most uses.

Lutex Winding Emulsion SWC

A balanced formulation designed to improve the moisture regain, softness, lubricity, mildew prevention and antistatic characteristics of cotton and rayon yarns as well as improved knitting, tufting, and weaving properties. It is stated that it dilutes readily with cold water to form a completely stable emulsion for easy application by roller during the winding operation.

* * *

McCARTY ANILINE & EXTRACT CO
P O Box 2386
Charlotte 1, NC

Carostrip TS

A stabilized titanium stripping compound. It is said to strip most of the reactives, directs, acids from textiles and paper. Especially yellows or buffs. It is stated that it is very fast for piece goods stripping by jig or pad. Even strip from selvage to selvage, and no oxidation or precipitations. Fresh stock carried at all times.

Silver Glo* E-1

A high density nonionic hydrocarbon emulsion. A bath stabilizer and extender for oil repellency, water repellency, soil and lint resistance. High abrasion resistance as a durable top softener is claimed. Nonyellowing, no chlorine retention, and compatible with many resins, finishes, etc. For increased luster in Schreiner or embossing finishes. It is stated that it produces excellent wrinkle resistance. It is claimed to produce the lowest costs on the American market for the above type work.

* * *

MELROSE CHEMICAL CORP
140 Essex St
Melrose, Mass

Melco Catalyst MBC

A metallic catalyst buffered to produce very tight cures of urea- and melamine-formaldehyde resins. A nonammoniated catalyst, it is said to be very efficient also with modified ureas and ethylene-formaldehyde resins. It is claimed that the range for tight cure is wider than most catalysts and for shorter periods.

*Registered trademark

Melcolite GPT

An amphoteric foamer detergent, specifically formed for the prevention of redeposition of vat dyes, naphthols and fiber reactants in printing and for production of whiter grounds. It is also used in dyeing of cotton and rayon cloth and yarn for leveling and producing brighter shades.

Melco Weighter DO

An inexpensive weighter said to be of good durability for light fabrics and yarns.

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METRO-ATLANTIC, INC
Centredale 11, RI

Atcobond 1240N

A nonresinous hand modifier which has been specifically designed to produce a full, firm hand on all types of fabrics which will show increase normally in tensile and particularly in abrasion resistance. When applied by itself or with softeners it can be considered semi-durable to washing and dry cleaning. Atcobond 1240N is compatible with most types of finishing agents such as resins, water repellents, catalysts, lubricants, etc.

Atcosoft* XP-100

A 100% active cationic softener which is said to have excellent resin compatibility and to exhibit or impart on sulfur-dyed fabrics the unique effect of the reduction or elimination of bronziness producing a high color value deep shade effect on the fabric. Atcosoft XP-100 is applied at low concentrations where a general cationic-type softener is of value.

Emboset* AN

A modified thermosetting resin which is said to produce an extremely firm hand on various synthetic open-weave fabrics such as marquisette sheers, shoe cloths, laces, etc. It is stated that one unique advantage of Emboset AN is its extremely low free formaldehyde content coupled with its low-temperature curing requirements.

Emboset* ANC

Manufactured to compete with the usual type of thermosetting resins applied to nylon sheers and marquisettes. It is said to produce a very crisp hand on natural as well as synthetic fibers. It is stated that a low free-formaldehyde content in the Emboset ANC helps reduce the in-plant odor problems normally found with methylated urea formaldehyde resins.

Emboset* KN

A thermosetting reactant-type resin which is said to produce extremely high crease resistance, to have a minimum amount of odor, and can be applied from conventional finishing equipment. It is claimed that the low free formaldehyde and absolutely complete elimination of any triazone resin content makes Emboset KN one of the more favored type of thermosetting resin to be employed for creaseproofing, stabilizing, or mechanically finishing cotton of cotton blends, viscose, viscose blends, or, for that matter, practically any fiber combination.

Ranedare* PF

A new reactant-type durable water repellent which is said to be compatible with practically all existing resin systems and it is stated that it can be applied to practically all type fiber combinations to produce extremely durable water repellency. Ranedare PF can be used as a water repellent extender in the oil and water repellent combined finish whether with or without

*Registered trademark

resin and is particularly effective with Catalyst 66. It is stated that Ranedare PF can be incorporated in resin and other formulations at a lower concentration to obtain stain and spot resistance along with very good lubrication and softening effects.

Rezsoft* CP

A cationic polyethylene emulsion which is said to exhibit and impart all of the properties which are normally attributed to a cationic softener used in conjunction with a polyethylene emulsion. The major difference, of course, being that Rezsoft CP due to the manufacture of the product is claimed to exhibit enhanced properties as regards tear, tensile, sewability, and abrasion resistance. Rezsoft CP is compatible with all types of nonionic or cationic finishing agents and should be checked with anionic materials since it does exhibit good compatibility with quite a few anionic products.

Rezsoft* NPL

A reactant nonionic polyethylene lanolin finish. Rezsoft NPL has many wide uses, the most apparent of which is on those fabrics which are going to be used next to the skin wherein the benevolent properties of lanolin will enhance the wearability of the garment. With resins Rezsoft NPL cross links and is said to produce a durable finish which is extremely pleasing, to promote high abrasion resistance, and to give the fabric excellent tear and sewability.

Weldtex*

An aqueous phase emulsion system which is used basically as an adhesive for binding foam to fabric or fabric to fabric. Weldtex can be applied on conventional equipment and merely requires a drying of the film and no additional curing. The bond produced with Weldtex is said to be extremely durable to perchlor, Stoddard Solvent, and other dry cleaning solvents as well as to a standard 3A AATCC wash test.

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ONYX CHEMICAL CORP
Warren and Morris Sts
Jersey City 2, NJ

Anionyx L

A concentrated anionic wetting and rewetting agent of exceptional efficiency. It is recommended by the manufacturers for desizing, boiling off, mercerization, pad dyeing, Sanforizing, resin finishing, and printing. It is said to be an extremely versatile assistant and to be compatible in most systems except those that are strongly cationic. It is particularly suggested because its concentrated form makes it economical for mills to prepare dilute, stable stock solutions.

Levelol 74

A newly developed retarding and leveling agent for wool and wool blends to be dyed with acid colors at low pH. Levelol 74 will permit the use of acid milling colors to be dyed with mineral acids. It is said to assure level dyeings, increased color value, improvement in lightfastness and wet crock fastness.

Onyxset A

A new reactant resin developed for the most efficient level of shrinkage control and crease resistance at the lowest cost. Onyxset A is a colorless liquid said to possess excellent storage life and is recommended by the manufacturers for cotton, rayon, and cellulosic blends to give a soft hand. Its use is suggested for minimum care finishes, shrinkage control, embossing, schreinering and glazed effects on dyed and printed cottons and rayon woven and knitted fabrics.

Onyxset G-75

Claimed to be a most efficient, durable stiffening resin for nylon and synthetic fabrics. Onyxset G-75 is particularly characterized by low formaldehyde odor in the drum, during processing and on fabric during storage. It is stated that no scarifice in stiffening performance has been made to achieve the minimum formaldehyde character. This product is suggested for nylon sheers and marquisettes with the usual builders such as starch and PVA resins.

Onyxset LC

A new cyclic reactant resin, outstanding for wash-and-wear results on white cotton. This product is said to display efficient stabilization, high scorch resistance, and a marked improvement in controlling odor in storage. It is a clear, colorless liquid said to possess unlimited solubility in water and to have excellent storage properties. It is recommended for use with Catalyst ZM, a modified zinc catalyst.

Polasan Liquid Softeners

A series of cold-water-soluble softeners and lubricants said to be outstanding for ease of handling, high degree of softening, compatibility with resin mixes, antistatic effects and low cost.

The series includes the following softeners:

Polasan A
Polasan N
Polasan C

which are anionic, nonionic and cationic respectively. Polasan A and Polasan N are said to have extremely high resistance to discoloration and are recommended for high temperature processing.

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ORGANIC CHEMICAL CORP
84 Valley St
East Providence, RI

Orcanil AC Special

A cation-active leveling agent for use in the dyeing of wool with all types of colors wherever the problem of levelness is present. It can be added to the bath in the event of an over dyeing and achieve a partial strip to produce the proper thinner shade. It is a moderately viscous liquid with a slightly alkaline reaction which is said to possess excellent dispersing and protective colloid effects as well as good wetting efficiency and detergency.

Orcogal O

This product is offered as an aid in the production of level dyeings. It is nonionic and is stable to acids, alkalis and metallic ions. It is also recommended by the manufacturers for use as a stripping assistant for vat dyestuffs and can be used as a retarding agent for direct colors. It has been successfully used as an emulsifying agent in water-in-oil and oil-in-water printing pastes with pigment colors on both screen and roller printing.

Orco* Salt O Solution

A modified ethylene oxide condensate which has been primarily developed to replace a portion of the sulfuric acid in the acid metallized type of dyeings. It is stated that its use here will lessen fabric deterioration and equipment corrosion. It is further stated that this product has also been found to be very effective in the reduction of crocking in the dyeing of greasy packages with Nerosol Black RF** when used both in the boil-off and in the dyebath. Being an effective emulsifying agent, it has been used for the removal of mineral oil which has been steamed into piece goods.

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ORIGINAL BRADFORD SOAP WORKS, INC
West Warwick, RI

Catalyst 18

A specially compounded catalyst designed to give greater flexibility and efficiency in use with most types of resins. Among notable features are said to be: higher tensile and tear strengths at various crease recovery angles, greater protection for tear and tensile values and fabric color on overcuring, better whiteness particularly when fabrics are not afterwashed, greater resistance to chlorine damage, improved scorching and heat resistance, and no apparent adverse effect on colors.

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PARA-CHEM, INC
Ontario and Rorer Sts
Philadelphia 34, Pa

Paranol® F-6104

A custom-compounded butadiene-styrene latex developed especially for use as a dye accepting coating for upholstery fabrics. This compound also is said to impart a firm full hand as well as excellent binding properties.

Paranol® Plastic 600

A new acrylic terpolymer dispersion said to exhibit outstanding aging characteristics. Films obtained from this dispersion are said to be clear, soft, flexible and elastic. It is stated that these films show a minimum of discoloration under heat and ultraviolet exposure and also show superior long-term aging. While this polymer is self crosslinking, the crosslinking rate can be increased by the addition of formaldehyde or thermosetting resins. It was developed for application to automotive and upholstery fabrics. In its use as a backsizing for flat and pile fabrics, this latex is said to show excellent adhesion to natural and synthetic fibers.

Paranol® Plastic F-5978

An acrylic-based material fully compounded for application to upholstery fabrics prior to scouring and dyeing. This backing is dye acceptable, and is said to impart hand and bulk to the fabric, while minimizing the danger of undesirable stiffening on aging. Especially recommended by the manufacturer for application to nylon frieze.

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POLYMER INDUSTRIES, INC
Springdale, Conn

Emulsion Concentrate 1740 R-5

A cold water-dispersible, one-piece thickener to be used as a base for oil-in-water emulsions, especially designed for fiber reactant, dispersed, acid, basic, and direct dyes.

Polybond 1767

A high solids, water-soluble adhesive, designed for adhering a wide variety of synthetic fabrics, including polyester fibers to rubber blankets on automatic screen print machines, as well as to the back greige on standard roller printing machines.

Polyethylene Emulsion 503

A nonionic polyethylene emulsion recommended by the manufacturer as a pure finishing compound to impart body and silkiness to fabrics, as well as being used with

*Registered trademark

*Registered trademark
**Patented

thermosetting resins to improve tear strength and abrasion resistance.

Polyfilm 7-W-3

A synthetic copolymer resin designed as a warp size for filament and spun polyester fiber. It is stated that this size can be removed from the woven fabric with normal dye house boil-off procedures.

Polyfilm C-1

A polymeric resin solution designed to act as a binder and plasticizer on starch to improve weaving efficiencies of cotton yarns and cotton blends with synthetic fiber. It is stated that the size after weaving is completely removable by the normal bleachery and dye house boil-off procedures.

Polygum 262

Cold water-dispersible gum of low viscosity, said to afford high solids in solution and recommended highly by the manufacturers for the printing of acetates, polyester, and difficult fabrics where fine lines and good color value are important.

Polygum 263

Cold water-dispersible thickener for azoic colors and soluble vat colors.

Polymer 65

A nonionic polyvinyl acetate emulsion, compatible with a wide variety of finishes, especially designed to operate on conventional, high-speed drying equipment, such as dry can stacks, without the usual difficulty of pick-off and build-up on the cylinders. This product can also be schreinered and hot calendered.

Sewing Lubricant 505

A nonionic emulsion especially designed to be used with thermosetting resins to reduce needle cutting, and at the same time impart body and silkiness to fabrics.

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POLYVINYL CHEMICALS, INC
Peabody, Mass

***NeoCryl A-400**

An acrylic copolymer emulsion which is dispersible in dilute acids, such as 5% acetic acid, but soluble in more concentrated acids, such as 25% acetic acid; will form hard, clear, colorless, films. It is said to be extremely resistant to water and soap scours. It is stated that, when adequately plasticized or when applied from solution, it is an excellent base for textile sizes and finishes. Adhesion to synthetic and natural fibers is said to be very good.

***NeoCryl A-410**

An acrylic copolymer emulsion which is soluble in very dilute mild acids, such as 5% acetic acid. Forms hard, clear, colorless, films, when applied from solution or when adequately plasticized. It is said to be very resistant to water and soap scours, to be an excellent base for textile sizes and finishes and to have good compatability with waxes, softeners and curing resins. Films formed from NeoCryl A-410 emulsion may be easily removed by combinations of mild acids and wetting agents.

***NeoCryl BT Series**

Alkali-soluble acrylic copolymer emulsions which form clear, tough, flexible films. Sizes and finishes based upon these NeoCryls are said to be unaffected by high humidity, to be readily removed by a mild soap scour and to have excellent adhesion to polyester, polyamide and polyacrylic fibers. Within the series, products forming soft flexible films as well as those forming hard and horny films are available. Polymers which vary in the viscosity of their aqueous solution are also available.

*Registered trademark

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THE PROCTER & GAMBLE DISTRIBUTING CO
P O Box 599
Cincinnati 1, O

Product SAC

A modified concentrated amine condensate which was especially developed to give desirable soap-like properties with the compatibility and free rinsing properties of a synthetic detergent. It is said to be an excellent lubricant and scouring agent for woolen and worsted fabrics. It is also an effective assistant for preparation of cotton and synthetic fabrics and soaping dyed and printed goods. It is stated that it is a free flowing liquid and has excellent suspending power, rinsibility and alkali compatibility. It will leave fabrics soft.

Product NOL

A non-oily, low-soiling fiber lubricant nonionic in nature especially developed for use on carpet stocks. It consists of a balanced blend of fatty esters and plasticizers. It is said to have excellent resistance to oxidation, good spreading properties and no corrosion tendencies. It is stated that it comes in an easy to prepare liquid form which makes very stable emulsions, that it has no effect on color or shade, that baled treated stock does not dry out and that treated stock cards exceptionally well with a minimum of fiber breakage, fly and waste.

Product PNC

A nonionic softener, lubricant and finish which is said to give maximum money value performance because of its high solids content and highly effective chemical composition. It is stated that it should be of particular interest to convertors, jobbers and formulators who want to prepare and market dilute products and should also be of interest to textile finishing plants who want to reduce finishing costs to a minimum by making their own pastes or stock solutions. This is a 100% active, white opaque solid which is essentially a long chain fatty ester.

Proslik*

A unique and modern concept of a fabric softener designed to keep today's complex textile finishing operations trouble free. It is stated that it gives a very soft, drapy hand typical of cationics but does not have their limitations. It is further stated that it has much wider compatibility with other finishing ingredients and does not change the shade or affect the fading rate of dyed and printed fabrics. It also is said to have excellent resistance to yellowing due to aging or high temperature drying or curing.

Softener AL

A highly concentrated unique cationic softener in block form said to possess excellent resistance to yellowing on storage or scorching. It can be made readily into stock solutions or dilute pastes.

Softener GW

A new and unique, quality cationic softener developed to give maximum softness especially on cellulosic fabrics. It is equally effective in pad and long bath applications. Among its many strong points claimed are its excellent resistance to yellowing on aging and protection against scorching at high temperature drying. It can be easily dissolved at 150°F. It is compatible with cationic and nonionic materials including thermosetting resins and resin catalysts.

*Registered trademark

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PROCTOR CHEMICAL CO, INC
P O Box 399
Salisbury, NC

Curite MM

For the cure acceleration of thermosetting resins. A buffered solution of zinc nitrate designed to accelerate the cure of thermosetting resins and said to show minimum degradation due to chlorine retention, excellent resistance to yellowing when exposed to high curing temperatures, while giving maximum crease resistance with minimum loss of fabric tensile and tear strength. Curite MM is said to offer all of the advantages of using straight zinc nitrate as a catalyst, but to offer better scorch resistance and a marked reduction in the degree of shade change of dyed fabrics. This catalyst is easily handled and applied by all conventional methods used in resin application and is said to have excellent storage stability, remaining satisfactory for use indefinitely under normal conditions. It is unaffected by freezing.

Hylite

Thermosetting resin. A specialty thermosetting resin designed to enable fabric finishers to produce excellent crease resistance of wash-'n-wear effects that are said to have excellent durability to repeated severe washings. Fabrics finished with Hylite are said to have little or no degradation due to chlorine retention. It is stated that both cotton and synthetics can be processed without harming the lightfastness of most classes of dyestuffs and in particular, Hylite is said to offer excellent protection to the original lightfastness ratings of the reactive dyestuffs.

Melotone X-2

Fabric softener. A durable, nonyellowing softener plasticized with polyethylene that is said to enable the finisher to produce soft, silky handles on all types of cotton and synthetic fabrics with improved tear strength of resin finished fabrics. It is stated that Melotone X-2 is especially suited for application with thermosetting resins as it exhibits good compatibility with all catalysts normally used. It is said to have outstanding resistance to yellowing and scorching when exposed to high curing temperatures used for thermosetting resins and is reported to be a non-soil-retentive softener. The product is stable under normal storage conditions and is compatible in both mild acid and alkaline solutions and with practically all currently used finishing agents.

Protorez W-3, Protorez 945, and Protorez 0-55

Thermosetting resins. A line of resins designed to be used in conjunction with other thermosetting resins to improve the handle of fabrics. These three resins are applicable to a wide variety of woven goods and especially are said to lend themselves to improving body and stabilization of viscose fabrics. Finishes produced with Protorez W-3, Protorez 945, and/or Protorez 0-55 are said to have good resistance to degradation due to chlorine retention, little or no harmful effect on the abrasion resistance of fabrics, and do not impair the lightfastness of most classes of dyestuffs. It is stated that these products are stable to normal storage conditions indefinitely and are unaffected by freezing.

PUTNAM CHEMICAL CORP
Charlotte, NC

Ultraphor* AL

A new optical brightener that produces bright bluish whites on acrylic, acetate, and tri-acetate fibers and is said to have outstanding fastness to light. It is stated that Ultraphor AL is readily soluble in hot water and can be applied very effectively along with sodium chlorite to produce outstanding brilliancy with good fastness to wash, hot air, and pleating. This brightening agent has been found compatible with most cationic and nonionic softeners exhibiting excellent affinity for the fibers in hard or soft water.

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QUAKER CHEMICAL PRODUCTS CORP
Lime & Amerds Sts
Conshohocken, Pa

Quaker Dianol* AC-100

A modified amine condensate recommended by the manufacturer for fulling and scouring of woolen and worsted fabrics. The product is supplied as a liquid easily dispersible in water. It is said to provide excellent fulling characteristics and good detergency carry-over into the washing operation. It is stated that the product is free rinsing and has a low B.O.D. value, thus providing additional advantages over soap for the processing of wool fabrics. Soda ash is recommended as the builder.

Quaker Diapene* 596

A polyvinyl acetate homopolymer that will form a very strong, hard film on drying. It is said to provide a stiff, full-bodied hand on textile fabrics with excellent aging characteristics and to be extremely fast drying and resistant to dry cleaning. It is reported that it has excellent abrasion resistance. It is recommended by the manufacturers for pigmented formulations because of its good binding power and low plasticizer demand. The product is said to be outstanding for use as a grain-retentive tie coat for pyroxylin coated bookcloth.

Quaker Diapene* 629

A flexible water-resistant, polyvinyl acetate homopolymer said to have excellent mechanical stability and small particle size. The product will produce a strong, flexible glossy film and is said to have excellent abrasion resistance and adhesion, good chemical stability, resistance to oil and grease stains, and excellent light and heat stability with good durability. Further, the product produces a pliable, leathery hand on textiles. The product is claimed to be an excellent pigment binder and to be cross-linkable.

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REFINED PRODUCTS CO
Lyndhurst, NJ

Drilene 306

An easily dispersible wax-metal salt type water repellent which is said to impart an excellent water repellency with maximum hand build-up properties.

Drilene D

A wax-based white emulsion developed to give a high degree of water repellence to all type of fabrics.

Drilene L

A thermosetting compound that is said to provide durable water repellency and resistance to spotting and staining. It is stated that it reduces water absorption and wicking without affecting air permeability.

*Registered trademark

Kara Mul 100

A polyvinyl acetate emulsion of a relatively high molecular weight. It is said to be an efficient and stable binding and finishing agent for textile fibers and fabrics.

Kara Mul 110

A borate-stable polyvinyl acetate homopolymer. It is a very fine particle size emulsion developed as a textile stiffening and bodying agent. It has good mechanical and chemical stability.

Karasan 51

A highly refined concentrated cationic softener designed to give the ultimate in softness, lubricity, and antistatic properties to both natural and man-made fibers.

Kara Set 108

A stable liquid fiber-reactant type resin used for finishing cellulosic-synthetic blend fabrics such as cotton and/or rayon blended with Dacron, Fortrel, Kodel, etc.

Kara Set 111

A reactive resin that is claimed to simulate the properties of dimethylol ethylene urea but to be superior in its resistance to chlorine, in durability of finish to repeated launderings, and in its affect on the lightfastness of dyestuffs.

Kara Set 233

A highly monomeric methylated urea-formaldehyde resin used to impart a full bodied, crush resistant, shrinkage-controlled finish on cottons and rayons.

Kara Set 236

A urea-formaldehyde polymer that is said to build body and stiffness in most textile fibers. It is further said to stabilize rayon and cotton and insolubilizes starch finishes.

Karasist 20

A mildly acidic compound that is claimed to possess extreme solvating power for removing metallic impurities from yarns and fabrics.

Karasist 40

A solvent-sequestrant type compound developed as an additive for scouring and kier boiling formulations. It is said to solubilize rapidly and disperse oils, greases and waxes.

Karasist 543

A chelating agent recommended by the manufacturers for complexing metal ions in oxidizing and bleaching media.

Perma-Cide 438

An organic mercury compound developed as a mildew proofing agent for cotton and cotton duck. It may be used with water repellents.

Perma Set 1302

A methylated melamine resin blend that is said to impart a durable resilient firm hand on hydrophobic fibers.

Velvagane

A nonnitrogenous compound prepared especially as a hand modifier, builder, and weighter for knitted and woven fabrics.

Velvamine 260

A 100% cationic softener for cotton and synthetic fabrics.

RICHMOND OIL, SOAP & CHEMICAL CO, INC
1041-43 Frankford Ave
Philadelphia 25, Pa

Coning Lubricant 3278-C

A coming oil for use in the emulsion trough which is said to possess high antistatic and lubricating properties. Designed for the oiling of unsized polyamide and polyester yarns after texturing; for oiling filling yarns for weaving; for oiling of false twist yarns of all types and for oiling of preshrunk hosiery welt yarns. It is stated that it will emulsify readily with water without the addition of emulsifying agents making it extremely easy to scour and process fabrics manufactured from the oiled yarns. Yarns oiled with Coning Lubricant 3278-C have very low knitting tensions producing efficient knitting characteristics.

Coning Lubricant 3308

A silicone type coning lubricant designed for use in the emulsion trough for coning and winding synthetic sewing threads. It is designed to reduce the heat buildup during the sewing. It contains a noncuring type silicone, a high percentage of antistatic agent and has a very low evaporation rate in the emulsion trough.

Richspin

A special type of oil designed for the spinning of acrylic fibers. It is said to have high antistatic properties, to be extremely easy to emulsify and scour readily out of the yarn. Can also be used for the spinning of wool tops.

Richspin MS

This is claimed to be an outstanding antistatic lubricant for the spinning of wool and synthetic carpet yarns which is completely synthetic in nature and shows a marked improvement over the conventional fatty or mineral oil type of products. It is said to give the proper coefficient of friction and fiber-to-fiber cohesion necessary for processing wool fiber efficiently in the combing, drafting and spinning operation. It is further said to result in greater yields, less waste due to fly and to reduce card strippings and ends down in spinning woolens. It is stated that Richspin MS is nonstaining, does not oxidize to form rancid or sticky deposits and is completely soluble in water to give a clear solution.

Rubberknit® 300

A new development in a completely synthetic lubricant for coning polyamid, acrylic and polyester yarns used in covering rubber threads or processed in conjunction with rubber threads. It contains no mineral, vegetable or animal oils and, therefore, has a minimum effect on the tensile strength and swelling characteristics of the rubber. It is stated that it is completely water dispersible, will readily scour out of the fabric, and has excellent antistatic qualities.

Scourpen 3278

An especially prepared blend of nonionic surface active agents designed for the scouring of wool, worsted and wool blends and said to be highly efficient for the washing of knitted wool and blended fabrics. It is stated that it easily removes oil and grease and leaves a low extractable figure on the fabric, but will leave a soft, lofty hand after washing. It is reported that it is unusually stable in hard water and is compatible with other anionic and nonionic surface active agents. It may be used with the usual alkaline builders and is compatible with cationic softeners. It is said to be very effective for scouring cotton lending lubrication to the yarn.

ROHM & HAAS CO
Washington Square
Philadelphia 5, Pa

Rhoplex* B-27
A 45% solids acrylic emulsion polymer for pigment printing based on oil/water or water/oil systems, which is said to offer low crocking, improved washfastness and greater resistance to cyclic aging.

Rhoplex* HA-16
A 45% solids self-crosslinking acrylic emulsion polymer which is said to offer maximum stiffness, wash and dry-clean fastness.

Tamol* SN
Sulfonated naphthalene formaldehyde condensate in spray-dried form for dispersion of clays, pigments, dyes, etc.

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ROMA CHEMICAL CORP
900 Passaic Ave
East Newark, NJ

Blender TM
A general purpose lubricant which has been successfully used in Romadye and Romasol (water-in-oil) type systems. It is stated that it has been found to be highly effective as a lubricant for Rapidogens, vats and other classes of dyestuffs.

Defoamer O-1
A defoaming agent for aqueous systems. It is a highly effective defoaming agent for aqueous systems for the prevention and control of foam formation. Its nonionic nature is said to provide excellent compatibility with practically all chemical materials employed in textile processing and its high potency to permit the use of minute quantities for effective and immediate control.

Low Crock H-9
A low-curing low-crock additive which is said to give excellent crock reduction with good wash and perchloroethylene resistance and with exceptional heat and light resistance. This product is especially recommended for whites.

Low Crocks H-10 and H-11
A low-curing low-crock additive said to give excellent crock reduction with good wash and perchloroethylene resistance.

Romalube AT-1
It is claimed that Romalube AT-1 has been extremely successful as an additive to Romadye and reactive systems, to prevent tarnishing of the print rolls and build-up of color behind doctor blades.

Subex DB-1
An ionic product specifically developed as a color intensifier for sulfur black dyed goods. It is stated that Subex greatly increases the color and also leaves the fabric very absorbent and receptive to further treatment, particularly resinating.

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RUMFORD CHEMICAL WORKS
Rumford 16, RI

Quadrene 80
An excellent liquid detergent with grease removing properties that are said to be usually associated with highly alkaline products. Quadrene 80 is mainly nonionic and is claimed to show good stability in both acid and alkaline baths. Can also be combined with a peroxide bleach operation. Suggested uses are on cotton, wool or synthetics that are particularly hard to clean. Samples available upon request.

*Registered trademark

SANDOZ, INC
61 Van Dam St
New York 13, NY

Ceranine PN
Cationic softener for all synthetic fibers, but in particular for the polyacrylonitrile fibers. It is said to give a soft, lofty, cashmere-like hand. It is further said to improve the winding, weaving, and knitting properties of yarns, as well as sewing properties. Acts as an antistatic agent on synthetic fibers in general.

Leucophor A
An improved, acid-stable fluorescent whitener for cellulosic fibers, for application in acid finishing baths containing acids or metal salts as catalysts.

Lyogen WD
A leveling agent for difficult wool dyeing with acid dyes—in particular, milling dyes—and Lanasyn Brilliant chrome dyes. The pH being on the acid side, wool dyeings will be noticeably brighter in tone, since yellowing of the fiber is avoided. It is stated that the retarding and leveling action of Lyogen WD has proved useful in the dyeing of silk polyamide fibers with milling dyes.

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SCHER BROTHERS
Industrial West corner Styertowne Rd
Clifton, NJ

Print-Lube
A white nonionic fluid which is said to disperse readily into printing pastes to furnish greatly improved running properties in both machine and hand printing formulations. It is stated that it maintains a high degree of lubricity within the print paste and prevents pigments from accumulating and drying out in the etchings on the roller printers. Silk screens are said to be kept clean and free from dried out pigments for longer periods of time thus reducing down time for cleaning.

Schercolene SB
A synergystic liquid blend of detergents, solvents, and builders formulated for scouring heavily soiled knitted goods. It is said that it effectively removes graphite, greases, dirt, and processing oils from synthetic or natural fibers. It is said to be particularly efficient in washing virgin or garnetted knitted goods in washer-extractor type equipment yielding clean, bright, soft fabric with maximum whiteness on nondyed goods.

Schercomid CDA
A 2:1 diethanolamide from coconut fatty acids. Soluble in water, alcohols, aromatic and chlorinated hydrocarbons. Clear solutions in aliphatic hydrocarbons can be made by addition of oleic acid. The emulsifying and detergency properties of this product are said to make it an excellent base for the preparation of all types of emulsifiable solvent cleaners and is said to impart increased detergency and soil suspending power to other surfactants. It is used with soaps, alkylarylsulfonates, or alkylsulfates in the manufacture of industrial cleaners, textile scouring agents, and liquid laundry detergents.

Schercomid CDO
A 2:1 diethanolamide from coconut oil, readily soluble in water and all types of solvents, except aliphatic hydrocarbons in which it can be made soluble by addition of oleic acid. It is said to impart increased detergency and soil suspending power to other surfactants. It is used to prepare cotton rug cleaners, scouring agents, liquid laundry detergents, and solvent type scours for use in aqueous systems.

Schercomid COD
A 2:1 diethanolamide from mixed fatty acids. It is stated that it forms a good high-temperature detergent, especially useful in combination with other surfactants for scouring cotton and synthetic fibers.

Schercomid MAA
A modified 2:1 diethanolamide from coconut oil, soluble in water, aromatic, and chlorinated hydrocarbons. Dispersible in aliphatic hydrocarbons. Dispersions in mineral spirits, kerosene and mineral oil are viscous and slightly cloudy, however, this can be cleared with a small addition of oleic acid. These mixtures are said to form excellent emulsifiable oils which are useful as textile lubricants and antistatic agents.

Schercomid SL
A high activity diethanolamide from lauric acid. Forms stable and clear solutions in water in the presence of other surfactants. Used with alkylarylsulfonates, alkylsulfates and the regular inorganic builders in laundry detergents to impart increased detergency, soil suspending power, and thickening.

Schercomid SCO-Extra
A high activity diethanolamide from refined coconut oil. It is said to increase detergency and foam stability of other detergents. Combinations with alkylarylsulfonates, alkylsulfates and the regular inorganic builders provide syndets which are said to possess excellent detergency and soil suspending power for applications in scouring of textiles.

Schercophos L
A concentrated water-white liquid sequestering agent which is said to soften and condition water used for washing knitted goods. It acts as a detergent booster when washing heavily oiled garnetted wool or Orlon. It is said to be especially suited for use in washer-extractor type equipment because of it's low foaming properties and effectiveness over a wide temperature range.

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SCHOLLER BROTHERS, INC
Collins & Westmoreland Sts
Philadelphia 34, Pa

All-O-Mine EL
A nonionic semi-permanent softener for cottons, regenerated cellulosic fibers, and other synthetic fibers. All-O-Mine EL is said to give a soft, full hand with a surface lubrication that facilitates cutting and sewing operations. It is particularly effective on tubular knit cottons and rayons. All-O-Mine EL is further said to give excellent results in package machine applications to cottons and synthetics because of its softening and lubricating characteristics and low-foaming properties. All-O-Mine EL is a soft paste which is readily dispersed with hot water for application by conventional mill methods.

Creamoyl* XHS
A modified cationic finish for tricot fabrics, both acetate and nylon, as well as other fabrics of natural and synthetic fibers. It is stated that Creamoyl XHS imparts a smooth, full hand, having a high degree of softness and excellent draping qualities.

Registered trademark

The finish contains surface lubricants to facilitate the cutting and sewing of fabrics. Schreinered nylon tricot fabrics finished with Creamoyl XHS are said to have improved luster and a soft, velvety hand. Creamoyl XHS is a thin, milky emulsion that is readily diluted for application by pad, in a beam machine or in a beck using conventional mill methods.

Dura Beau* Finish #10

A modified cationic, semi-permanent finish for light weight cottons and synthetics and blends thereof. It is particularly effective on the Dacron/nylon/cotton blends. Dura Beau Finish #10 is said to impart a rich, full, luxurious soft hand with surface lubrication. It is a creamy white paste that is readily dispersed with hot water for application by conventional mill methods. Dura Beau Finish #10 is equally effective applied by pad or exhaust methods.

Dura Beau* Finish #12

A modified cationic, semi-permanent finish for nylon fabrics, acetate fabrics, particularly the tricot constructions, and fabrics of snythetic fibers. It is said to impart a characteristic smooth, lubricated hand with a high degree of softness. Dura Beau Finish #12 is a hazy, thin liquid that is readily extended with warm water for application by conventional mill methods. It is most effectively applied by pad, but it has been used very successfully in beam machines and in dye becks.

Dura Beau* Finish #21-W

A nonionic finish for wash-and-wear fabrics and for piece goods. Dura Beau Finish #21-W is an emulsion of selected natural and synthetic waxes compounded in proportions to promote optimum softness, lubrication, abrasion resistance and tear resistance in wash-and-wear formulations. It is stated that it helps improve sewability, reduce needle cutting and will not yellow whites or alter the shade or lightfastness of dyed fabrics. It can be used in combination with the wash-and-wear formulations or as a top finish on previously treated fabrics. Dura Beau Finish #21-W is also effective as a finish in its own right on cotton, rayon, wool, the synthetics and the numerous blends. Dura Beau Finish #21-W is an off-white milky emulsion, readily extended with water for application by conventional mill methods.

Unitone TR

An anionic detergent and dyeing assistant especially compounded for the one-bath method of scouring and dyeing seamless and full-fashioned nylon hosiery. It is stated that it supplies the emulsifying properties to remove knitting oils and crayon marks as well as a careful balance of components to obtain level dyeing, excellent penetration and good unions between monofilament and multi-filament components of nylon hosiery. Unitone TR is an amber liquid, readily dissolved for use in conventional hosiery processing equipment.

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SCIENTIFIC CHEMICALS INC
1637 So Kilbourn Ave
Chicago 23, Ill

Vinyzene BCBX*

Said to be an highly effective fungicide for vinyl coatings. Can be supplied as 100% active powder, or dispersed in plasticizer systems. It is claimed that it meets most government mildewproofing specifications when used at levels of approximately 1% active.

Chemical description: Bromchlorenone.

*Registered trademark

SHAWINIGAN RESINS CORP
Springfield 1, Mass

Resin D-886

A new vinyl emulsion said to be capable of yielding extremely tough, yet resilient, films which are particularly suited for binding nonwoven fabrics and as a finish for woven fabrics. It is stated that since these films are readily cured by the application of heat, they are highly resistant to water and organic solvents. It is claimed that they have demonstrated remarkable durability through repeated washings and dry cleanings with perchloroethylene and Stoddard solvents. It is said to produce a relatively stiff, resilient hand when used as a binder for nonwoven fabrics and to give an extremely durable finish to a variety of fabrics including cotton sheeting, denim and heavier material.

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SOLUOL CHEMICAL CO, INC
Green Hill & Market Sts
Natick (West Warwick), RI

Aquagard-112

A recently developed, low-temperature curing, silicone water repellant specifically formulated for application by padding on fabrics containing noncellulosic fibers. Economical in use, it is said to offer maximum durability against removal by washing and dry-cleaning. It may be applied as a pure finish or in conjunction with thermosetting resins. It is compatible with most catalysts commonly used in such applications.

Lanosol

A lanolin-bearing finishing agent designed particularly to impart a smooth, full, velvet like hand on natural and synthetic fibers and fabrics such as velveteens, corduroys, lawns, sateens, etc. It is stated that, due to its nonionic nature, it is compatible with most finishing adjuncts. Completely soluble in both cold and warm water, it is said to be nonyellowing, odor free, and nonchlorine retentive. It may be applied in a padder as a pure finish or in conjunction with thermosetting resins, thermoplastic resins, starches, gums, and other materials commonly used in finishing operations.

Softener-L-25-1

A recently developed amphoteric softener which is said to exhibit outstanding durable softening and lubricating properties when applied on synthetic as well as natural fibers. It may be employed as a pure finish or in conjunction with resins, starches, gums and other finishing adjuncts. Being amphoteric, Softener-L-25-1 may be applied from acid, neutral or alkaline baths. Application may be made using conventional padding equipment, or by exhaustive methods using a Burlington machine or dye beck. It is stated that it is nonyellowing, odor free, and due to its excellent lubricating properties serves as a desirable sewing aid.

Solusil-RA

A 35% active silicone emulsion primarily used as a release agent for rubber, plastic, glass, etc. It may be employed to advantage as a release agent to prevent the build-up of polyurethane on equipment rolls in heat lamination. In such application, the product may be applied directly to the rolls by brushing, or wiping. This procedure should be repeated, as needed, usually after approximately 20 to 30 minutes of running time.

Soluslip-SL

A 35% active silicone emulsion developed specifically for use as a lubricant for the polyurethane surface of laminated fabrics. It may be applied by any contact method, such as reverse rolls, etc. It is readily dilutable with cold water, affording ease in plant application. A 6 to 10% concentration should produce sufficient lubricity for most requirements. It is claimed that, due to its excellent stability, the dilute working emulsion may be stored for subsequent use after completion of the Soluslip application.

Solutard-C

A quaternary ammonium compound designed to promote level dyeing of acrylic fabrics by decreasing the rate of exhaustion of dyestuff on the fiber. It is claimed that in addition to its retarding action, Solutard-C also exhibits outstanding dye leveling action, dispersing and wetting properties, and antistatic properties. It is easily dissolved in water and is stable in both acid and alkaline solutions at normal and elevated temperatures. The amount of Solutard-C necessary will vary according to the depth of shade desired and the particular dyestuff employed. However, in general, approximately 3.0 to 4.0% (on the weight of the fabric) should be used for pastel shades, and 1 to 3% for light to medium shades. The actual amount necessary should be first determined by trial. In employing Solutard-C as a retarding and leveling agent, it should be pre-dissolved in warm water and run for approximately 10 minutes at 110-120°F before adding the dyestuff. After addition of the dyestuff, the temperature should be brought slowly to the boil and dyeing continued at this temperature.

Solutol-S Concentrate

A durable, nonionic, finishing agent of 46% active content (plus or minus 1%) designed particularly for resin finishing of cotton or synthetic fabrics where the optimum in softness and smoothness is desired. It is claimed to be particularly effective in conjunction with thermosetting resins for crease-resistant fabrics, yielding increased tear strength, tensile strength, and crease angle values, and excellent sewability and abrasion resistance. The amount of Solutol-S (concentrate) to be employed will generally range from 1¼% to 3% (based on the weight of the bath) depending upon the particular work involved. For instance, when used with thermosetting resins such as urea-formaldehyde, melamine-formaldehyde, ethylene-urea, etc, resins, the use of 3% to 3½% of Solutol-S (concentrate) is recommended. When used as a top finish in resin application, as little as ¾% to 2% may be padded on to obtain a soft, smooth hand. Due to its nonionic nature, it may be used in conjunction with most types of resin catalysts currently being applied in resin finishing. It is said to meet all requirements of standard scorch and yellowing tests, and is nonchlorine retentive. It is stated that although it is particularly effective in resin finishing, it has also proved advantageous as a pure finish and in conjunction with other finishing materials, such as thermoplastic resins, starches, gums, etc. As a pure finish or with thermoplastic resins, such as polyvinyl acetate, etc, the use of 1½% to 3% is suggested.

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SONNEBORN CHEMICAL AND REFINING CORP
Textile Chemicals Division
300 Park Ave S
New York 10, NY

Fybrol* 3733

A highly stable, uniform wool fiber lubricant for use especially where subsequent acid fulling or carbonizing are to be carried out without prior removal of the oil.

*Registered trademark

Lubrisol* 3777

A concentrated emulsifier base for use in the preparation of solvent emulsion cleaners. When combined with appropriate solvents it is said to assist in the kier boil, in boil-off and in paint, tar, grease, oil and spot removal from cotton and synthetic fabrics. Related uses include cleaning of machines, tools, floors and industrial equipment.

Sonodet* 70

A concentrated nonionic detergent said to be useful in difficult scouring processes and also effective as a fulling agent, antistatic staple fiber lubricant and emulsifier.

Sonofin* 3639-B

A viscous, liquid, nonionic softener/lubricant which is readily dispersible in cold or hot water. It is said to minimize crease mark formation during dyeing of acrylic fabrics with disperse and basic dyes.

Sonolene* 3753

An efficient and economical emulsifier for dye carriers which is said to produce stable, finely dispersed emulsions of carriers such as methyl salicylate, butyl benzoate, biphenyl and 1,2,4-trichlorobenzene.

Textiline* 3790

A clear, stable liquid lubricant and static inhibitor for single end application to nylon sewing thread. It is said to impart low dynamic coefficient of friction for high speed sewing machines, eliminate or minimize effects of static electricity, bind filaments to prevent chafing and to be easily removed in boil-off or scour.

Textiline* 3805

A clear, stable, low viscosity yarn lubricant which is said to impart high lubricity, extremely low frictional properties for knitting and to effect maximum control of static when applied to bulk and stretch polyester, polyamide and polyacrylic filament yarns. It is also readily removed to permit bright, level dyeing.

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SOU-TEX CHEMICAL CO, INC
Mount Holly, NC

Cassofix** AS

Anionic padding auxiliary for fiber-reactive dyeing. Used for the prevention of migration during intermediate drying. In the case of uneven drying conditions as well as with fabrics of uneven density, a completely solid and uniform appearance of the goods is said to be obtained and it also is said to improve penetration and prevent migration from the interior of the goods to the surface.

Cassofix** GD

Cationic dye fixative used for the control of wetfastness properties of dyeings on cellulosic and synthetic fibers. Used as an additive product in the same bath with other dye fixatives to increase dye stability without decreasing lightfastness. Completely compatible with sulfates and other salts.

Cassofix** LD

Cationic dye fixing agent used for the control of wetfastness properties of dyeings on cellulosic and synthetic fibers. It is said to maintain highest obtainable lightfastness and color change values and to be completely compatible with sulfates and other salts.

*Registered trademark
**Registered trademark Cassella

Cassopar** KN

Cationic leveling agent for vat dyeing. It is stated that it reduces strongly the exhaustion speed of the sodium leuco compound in addition to increasing the migration ability. It is said to give excellent leveling properties especially for pastel shades. Enables full exhaustion of the dyebath during normal dyeing process.

Cassofix** RD

Cationic dye fixing agent used for the control of wetfastness properties of dyeings on cellulosic and synthetic fibers. It is said to combine excellent dye stability with a high degree of lightfastness. Completely compatible with sulfates and other salts.

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SPENCER CHEMICAL CO
Dwight Bldg
Kansas City 5, Mo

Poly-Em

A registered Spencer Chemical Company trademark for a series of new emulsions made by a polymerization process. Three polyethylene emulsions made by this process are currently available. These are a high and low molecular weight nonionic emulsion and a high molecular weight anionic emulsion. In the textile field, "Poly-Em" polyethylene emulsions are used as an adjunct to thermosetting resins. Performance data indicate tear strength enhancement, superior flex, and low surface abrasion for cotton and rayon. In addition, these emulsions are said to offer excellent compatibility with other polymerics, resistance to scorch and accelerated heat aging, resistance to color change, and a lack of odor. It is stated that fabrics treated with "Poly-Em" demonstrate a hand that is firm and full-bodied without stiffness or harshness and that "Poly-Em" emulsions exhibit good stability and handling properties.

* * *

STANDARD CHEMICAL PRODUCTS, INC
Hoboken, NJ - Charlotte, NC

Detergent SO

An economical sodium alkylarylsulfonate-type wetting agent having a low chill point. Said to be excellent as an assistant in peroxide bleaching and dyeing.

Detersol 342

A blend of nonionic surface active agents used as an after-print scour for silk.

Detersol 645

A nonionic surface active agent used as a prewetting agent and dyeing assistant in the package dyeing of cotton yarn.

Nonslip 109-D

A combined nonslip and dulling agent for lightweight taffetas and lining fabrics.

Stanax†

A durable antistatic finish for synthetic fibers, yarns, and fabrics claimed to have outstanding fastness to laundering and dry cleaning. Can be applied by padding or exhaustion technique. Requires no curing or afterwashing.

Standafin® BHM #1

A modified thermoplastic resin emulsion which is said to impart a firm but softer hand than the usual polyvinyl acetate emulsions. It was developed for application to ladies' seamless and full-fashioned hosiery.

*Registered trademark
**Registered trademark Cassella
†Trade name

Stantex® Ny-White

A new yarn lubricant for application at coning formulated to upgrade the color of man-made yarns. It is said to eliminate the yellow hue on yarns resulting in finished fabrics which have better consumer appeal.

Stantex® 881

A coning oil, for application to 40 denier nylon heel and toe yarns, having a viscosity (Saybolt universal seconds) of 58-60 at 100°F. One of the significant properties of the oil is that it can be satisfactorily tinted.

Stantex® 886

An antistatic oil, for application at coning to 40 denier nylon preshrunk seamless welt yarn, having a viscosity (Saybolt universal seconds) of 47-49 at 100°F. At 4-5% level of application, the product is said to produce a scroopy, humid hand, resulting in a clear uniform stitch formation.

Stantex® NSP #125 LV-3

A low viscosity yarn lubricant said to possess a high degree of lubricity. It is stated that, in actual mill evaluation, nylon heel and toe yarn oiled with 2.4% of the product resulted in extremely low cone densities (50) and extremely low delivery tension.

Stantex® 2503

A cationic type softener in the form of a soft pourable paste. It is said to impart a high degree of softness with little effect on shade changes.

Stantone 510

An amphoteric type softener for synthetics said to have excellent whiteness and softness characteristics. It is compatible with a wide range of finishing materials and has been used with good success on nylon and acetate tricot.

* * *

SYNTHRON, INC
Ryan Ave
Ashton, RI

Alvarez 55

A hand modifier body builder for resin finishes. It is a modified urea formaldehyde condensate.

Alvasol 365

A wetting, scouring and dyeing assistant. It is a modified alkylarylsulfonate.

X-Cellusoft

A durable shrinkage, crush resistant and self lubricating finish. It is a modified urea-formaldehyde condensate liquid formaldehyde.

Cellusoft P, PX, P Conc, P-40

A softener and lubricant for resin finishes containing no nitrogen. It is a nonionic pure polyethylene emulsion.

Chemrez AZ

A durable shrinkage control, which is said to give crease resistance and a resilient hand on hydrophobic materials. It is a liquid modified urea-formaldehyde resin.

Crockset

An anticrooking agent. It is a refined wax emulsion.

Napset

A softener and napping assistant. It is an amino ester dispersion.

Syntholite 1312

An anionic nonsubstantive softener and lubricant. It is a fatty ester dispersion.

THE TANATEX CHEMICAL CORP
Belleville Turnpike
Kearny, NJ

Amphicide*
A biologically active, amphoteric, phenolic surfactant which can be used as a highly substantive detergent-sanitizer for textiles. Compatible with other detergents and sanitizers.

Catalyst F
Low-cost organic catalyst for resin finishing. It is stated that nonyellowing, rapid-acting Catalyst F promotes uniform curing of fabrics treated with urea-formaldehyde, melamine-formaldehyde, and modified urea-formaldehyde resins. Bath life is said to be extended and odor development to be eliminated.

Caust Aid NF
Nonfoaming, caustic saturator additive that is said to promote rapid and thorough scours on cotton greige goods in continuous hydrogen peroxide bleaching.

Cellolube* CWS
A highly concentrated cold water-soluble softener that is said to be stable in the presence of acids, alkalis, orthophosphates and organic sequestering agents even at elevated temperatures. Compatible with nonionics, cationics and most anionics.

Cellolube* XZ
Claimed to be an outstanding amphoteric softener which may be applied in the alkaline scour prior to dyeing to soften fibers and prevent cracking and chafing. It may also be used in conjunction with detergents or alkalis in laundering.

DS-12
Reduces the intensity of shades of cationic dyeings on acrylic fibers where the dyeing has come up too strong. It is said to be an effective and economical dispersing agent for disperse dyes.

Flame Retardant TX
Inexpensive water-soluble flame retardant for textiles.

Merc-Assist A
An effective, low-cost, penetrant for mercerizing baths.

Merse* B-624
Amphoteric surfactant compatible with cationics and anionics that, it is stated, can be used as an excellent all around surfactant in the wet processing of textiles.

Tanadel IM
A dependable liquid carrier said to yield spot-free level dyeings and high color values on Kodel** polyester and Arnel*** triacetate. A simple one-step operation combined with ease of making dyestuff adds makes for speed in dyeing.

Tanalid* 004
Improved carrier for printing polyester and triacetate with disperse or cationic dyes which is said to allow full color fixation by atmospheric pressure aging. High color values, clear sharp prints, and outstanding fastness to washing and crocking are claimed.

Tanalon* ELG
Low cost, nontoxic, liquid carrier for polyester dyeing. Full lightfastness without heat treatment after dyeing is claimed; minimum staining of cellulosic fibers. Stable dye bath emulsion is said to produce level spot-free dyeings.

Tanalon* NP
Nonionic carrier for cationic as well as disperse dyes. Single bath procedure is made applicable to a variety of blends requiring cationic and disperse dyes. Compatible with inexpensive basic dyes. High color yields and level dyeings are said to be produced in a one-step procedure.

Tanavol* XC
A liquid carrier which contains no chlorinated solvents, Tanavol XC is claimed to produce outstandingly high color yields on polyester fibers and blends. Level dyeings are produced in a single step procedure.

Tanemul C
A low cost 100% active nonionic softener which is said to improve abrasion resistance, tear strength and stitch tear strength. Compatible with both anionic and cationic materials. It is stated that this softener is completely nontoxic and fully resists a 390°F scorch test.

Tanemul VE
An anionic surfactant developed especially for the emulsification of Stoddard solvent or Varsol†. Emulsions that are formed are said to be stable even at the high temperatures required in solvent scouring. A stable stock solution containing 90% solvent is easily prepared.

X-Tan Special C
Improved additive for sodium chlorite baths. Odors are said to be completely eliminated and corrosion greatly reduced.

* * *

CHAS S TANNER CO
250 South Water St
P O Box 367
Providence, RI

Phosfax
A phosphated ester material. It is a unique wetting agent and dispersant. It is said to have shown outstanding performance in kier boiling, bleaching, dyeing, and finishing of fabrics when used as a wetting agent and penetrating agent. It is further said to have shown particularly outstanding properties on pigment dyes and dispersed dyes, giving a more uniform dyeing, and less trouble with pickup on rolls and spots. Phosfax is a very low foaming material claimed to possess excellent wetting and dispersing properties. It is stated that it also has a very unusual property in that in plain water and also up to 2% caustic, it will retain the same wetting properties from 20°C to the boil, which gives uniformity in all applications that use varying temperature ranges during the process.

Synolube DS
A unique rewetting cationic softener. It is said to give excellent softening and nonyellowing properties and also to exhibit high wicking properties when applied to the fabric. It is particularly recommended by the manufacturers for diapers and towels, as a finish prior to Sanforizing, and for all other applications where rewettability is an asset. It is stated that Synolube DS has stability to gas fading and also has excellent heat stability.

Tanasol K-5
A phosphated ester that, it is said, has shown outstanding detergency properties. It is particularly recommended by the manufacturers for kier boiling and scouring applications. It is claimed to have excellent stability to boiling caustic solutions over a long period of time, giving excellent results even after prolonged boiling.

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TEXIZE CHEMICALS, INC
P O Box 1820
Greenville, SC

Tex-Wet 1055
A polyphosphate ester surfactant which is supplied in the free acid form that can be converted into whatever salt is most desirable for a specific end-use or application. This new surfactant-detergent, due to its unique combination of properties in high concentrations of alkalies and salts, is highly recommended by the manufacturers as a wet processing assistant in the kier boiling and scouring of cotton goods. Tex-Wet 1055 is added directly to the kier or boil-off operation without having to be neutralized first. It is stated that various alkali and amine salts of Tex-Wet 1055 have proven effective nondurable antistatic agents for most synthetic fibers.

Tex-Wet 1056
The sodium salt of Tex-Wet 1055 which is said to possess excellent wax and oil emulsifying properties in addition to good heat and caustic stability. It is further said to be ideally suited as a soaping-off agent for fast dyed and printed goods. It may be used alone or in conjunction with phosphates, soda ash or other alkaline builders. Tex-Wet 1056 finds use in boiling off rayon and various synthetic goods to remove warp sizes. It is also recommended by the manufacturers as a wet processing assistant in kier boiling, scouring and continuous boil-off of cotton goods.

Tex-Wet 1059
A clear light amber dodecylbenzene sulfonic acid with a maximum of 3.0% free acid content and 1.0% unsulfated matter. Tex-Wet 1059 can be economically neutralized with alkali or amine to produce anionic wetting agents and detergents which are said to be stable in hard and soft water, as well as in dilute acid and alkaline systems. This product is easily pumpable and is fluid at normal storage temperatures.

Tex-Wet 1066
A concentrated built nonionic detergent especially adapted for cleaning and scouring of cotton and all synthetic fabrics. It is stated that it is an extremely low foaming detergent with excellent soil suspending and emulsifying properties. Tex-Wet 1066 is claimed to be ideally suited as a detergent for complete removal and complete absence of redeposition of excess print pastes, pigments and dyes on the fabric.

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TRYLON CHEMICAL CORP
P O Box 5101, Station B
Greenville, SC

Trydet 20
A new water-soluble liquid nonionic detergent formed by the reaction of ethylene oxide with refined mixtures of unsaturated fatty acids and heterocyclic resin acids. Used in the textile industry for scouring cotton, rayon, acetate and nylon fabrics. It is stated that this highly concentrated low-foam detergent also offers synergism with alkylarylsulfonates, excellent spot removal properties on hydrophobic fibers, dye leveling and retarding action as well as suitability in the formulation of both commercial and household detergents.

Trydet 209
Same as Trydet 20 at 90% activity.

*Registered U S Patent Office
**Eastman Chemical Products Inc
***Celanese Corp of America

†Esso Standard Oil Co, Inc
*Registered U S Patent Office

Trydet NP-10

All purpose detergent surfactant formed by the reaction of ethylene oxide with nonyl phenol. A clear, concentrated water-soluble liquid for use in home and commercial laundry products, textile scouring, wetting, dyeing, desizing and degreasing. Also suitable in acid-metal cleaners, sanitizers and hard surface cleaning compounds.

* * *

VALCHEM
A Unit of United Merchants and Manufacturers, Inc
1407 Broadway
New York 18, NY

Hival #1

High potency roller cleaner, water dispersible, 100% concentrated. It is wiped, brushed or sprayed and removes greases, waxes, pigments, etc.

Hival L-100

A concentrated emulsifiable solvent cleaner particularly recommended by the manufacturers for the boiling-off of polyester fabrics.

Valbond BR

New emulsion binder for metallic printing, which is said to give unusual brightness, excellent lightfastness, dry-cleaning fastness and washfastness. It is stated that, contrary to many binders, Valbond BR does not discolor the metallic powders at all.

Valchrome CA

Acetate of chrome mordant solution.

Valdet AC-40

A 40% amine condensate surface-active agent for textile wet processing, as for instance, dye bath leveling, washing printed fabrics, and the boiling-off of synthetic fabrics.

Valdet CC

A 100% amine condensate surface-active agent for textile wet processing, as for instance, dye bath leveling, washing printed fabrics, and the boiling-off of synthetic fabrics.

Valdet Gel

Amide sulfonate surfactant.

Valdet MT-36

Amide sulfonate surfactant.

Valdet Slurry

Amide sulfonate surfactant.

Valrez 37-128

Completely new, complex cyclic resin, totally nonchlorine retentive, intended for superior wash and wear finishes.

Valrez AC

Polymeric, thermosetting resin, used alone or in conjunction with monomeric resins. It is said to impart crease-resistant finishes with a resilient "worsted" hand.

Valrez PR

Uniquely formulated UF paste resin, recommended by the manufacturers to produce crease resistance and shrinkage control on cotton and rayon fabrics. It is stated that it has virtually no effect on light- and washfastness on dyed goods.

Valsof G-100, Valsof G-2

Reactive, nonionic, nonyellowing softener. The product cross-links with thermosetting resins.

Valsof N-76

Novel napping softener, pure white, nonionic. It is said to produce extremely high loft and excellent coverage.

Valsof PMS

Unusual, nonionic softener, which is said to be completely nonyellowing, to offer superb lubrication, sewability and abrasion resistance.

* * *

VERONA DYESTUFFS
Springfield Rd
P O Box 385
Union, NJ

Acrafloc* LUM

A viscous synthetic resin binder which when used in conjunction with the cross linking agent Acrafix* LDU is suitable for electrostatic flocking in screen and machine printing. Due to the soft handle imparted by this product, it is especially adaptable for the flocking of large continuous surfaces. Acrafloc LUM is also suitable for flocking wood and metal.

Levegal* FTS

Represents a new, highly effective leveling agent for polyamide fibers when using acid, premetallized or direct dyestuffs. It is stated that the excellent leveling power of this product gives also better penetration and more uniform dyeing results on tightly twisted yarns and on chemically or physically modified material. Very good nonbarre results have been obtained in tests so far.

Mesitol* WLS

Represents a wool reserving agent. It is stated that the particular feature of this product is its ability to reserve wool when dyeing from a neutral or acid bath which permits the union dyeing of wool/cellulosic and nylon/cellulosic blends by the one-bath method. Aside from its reserving ability, Mesitol WLS is said to possess leveling properties on wool dyestuffs. This product is supplied as a dustless powder of very good solubility.

Phorwite* BA

Represents a new optical brightening agent said to possess high affinity for cellulosic fibers, excellent solubility, good wetfastness properties, neutral to bluish fluorescence. It is stated that the affinity of this product is practically unaffected by temperature or salt content of the dye liquor. Optimum brightening effects are achieved between the pH ranges from 7 to 11. It is further stated that, due to its high affinity even at temperatures near the boil, Phorwite BA can be applied in combination with peroxide bleaching on becks and package machines and that the extremely high solubility of Phorwite BA in cold water makes Phorwite BA particularly valuable for the printing of white discharges. Phorwite BA is available in powder or solution form.

Phorwite* DCB

Represents a new optical brightener for application on polyacrylic, polyamide, acetate and triacetate fibers. Phorwite DCB is said to be distinguished by its outstanding brightening properties which produce a neutral shade of white without the use of sodium chlorite. It is recommended by the manufacturer for application from becks, rotary machines and skein dyeing machines. For package machine application, Phorwite DCB Ultrafine is recommended. This brightener can be applied on polyamide in a slightly alkaline medium.

*Registered trademark

Phorwite* REU

Represents an optical brightener mainly recommended for application with resin finishes. The outstanding feature of this product is said to be its excellent compatibility with zinc salts as catalysts. In addition, Phorwite REU can be applied on polyamide fibers and blends of cellulosic and synthetic fibers according to the exhaust method.

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WARWICK CHEMICAL DIVISION
Sun Chemical Corp
Wood River Junction, RI

Impregnole FH*

A textile water repellent containing emulsified waxes and polyvalent metal salts. Useful on all types of fibers and fabrics, it is said to give excellent water repellent properties, even at extremely low concentration. Especially useful in conjunction with hand building or modifying agents such as polyvinyl alcohol, polyvinyl acetate, etc. With such combinations, it is said to give excellent water repellency, and good running properties. Product has greatly improved storage stability.

Mykon 463*

A nonionic textile softener said to possess excellent softening and lubricating properties. Compatible with all commonly used resins and catalysts. It is stated that it is nonscorching, nonyellowing, resistant to oxidation, and will not affect the lightfastness of dyes, and does not adversely affect fluorescent brighteners.

Mykon 515*

A very concentrated, emulsified, pure polyethylene product said to be of excellent stability and running properties. Contains 45% solids, and is recommended by the manufacturers as a starting raw material for chemical reformulators to produce more diluted polyethylene lubricants.

Mykon PE*

An emulsified, pure polyethylene product said to be of excellent stability and running properties. Recommended by the manufacturers as a softener and lubricant for use in conjunction with resin finishes to improve tear strength, sewability, and hand.

Norane CM-1*

A durable textile water repellent containing a hydrophobic thermosetting resin. May be applied to a wide variety of fabrics, but is especially useful on cellulosic fabrics. Compatible with thermosetting resins for obtaining water repellency and crease resistance simultaneously. Compatible with fluoro-chemical stain resistant finishes. Provides a slick, "glassy" hand.

Permafresh 309*

A self catalyzing cellulose reactant in liquid form for easy handling. It is said to provide excellent shrinkage control, a moderate level of chlorine resistance and does not adversely affect the lightfastness of sensitive dyes nor alter the fluorescent properties of optical brighteners. Product is further said to have excellent storage stability. Permafresh 309 is especially recommended by the manufacturers for shrink resistant finishing of knitted cotton fabrics.

Permafresh 490*

A methylol urea condensate said to be of high performance characteristics with low free formaldehyde. It is said to produce

*Registered trademark

high levels of crease resistance, shrinkage control, and wash-wear properties without attendant problems of formaldehyde odor. It is stated that the product does not cause adverse effect on the lightfastness of sensitive dyes; however, the product is chlorine retentive. Therefore, Permafresh 490 should be used on dyed or printed fabrics which do not require chlorine resistance.

Sunkem Catalyst X-14*

A liquid catalyst for thermosetting textile resins. It is said to be highly efficient for applications requiring an acetic type catalyst. It is stated that it has minimum effect on the shade of sensitive dyestuffs, and has little effect on the fluorescent properties of optical brighteners.

Warco 504*

A concentrated polyquaternary fatty compound. Recommended by the manufacturers as the active ingredient in laundry softening agents. It is said to provide excellent softening properties without buildup of water resistance, and provide pronounced germicidal properties.

Warcocide 14*

A fatty quaternary crystalline compound said to be of high purity. Substantitive to textiles. It is claimed to have an extremely high germicidal activity against a wide range of organisms. Recommended by the manufacturers for compounding textile germicidals with good durability to washing and dry cleaning.

Warcofix 806*

A thermosetting, cationic resinous dye fixative to improve the wetfastness properties of direct colors. Claimed to be unusually effective on a money value basis. May be used alone, or in conjunction with other thermosetting resin finishes.

*Registered trademark

*Registered trademark

*Registered trademark

EQUIPMENT

ANALYTICAL MEASUREMENTS, INC
585 Main St
Chatham, NJ

Recording pH Meter

Claimed to be the first and only instrument of its kind this is an automatic strip chart recorder and a line-operated pH meter combined in one compact unit. Continuously indicating, the Recording pH meter is simple to operate, can record continuously for 31 days without renewing chart paper. Uses no ink. 0-12 pH range, with adjustment to read 0-14 pH. Manual temperature compensation. Design of this instrument makes it adaptable to both production and laboratory uses. A switch on the front panel permits disconnection of chart drive so that the instrument becomes an indicating pH meter. *Price:* $245.00, complete with polyethylene-protected analytical pH probe unit.

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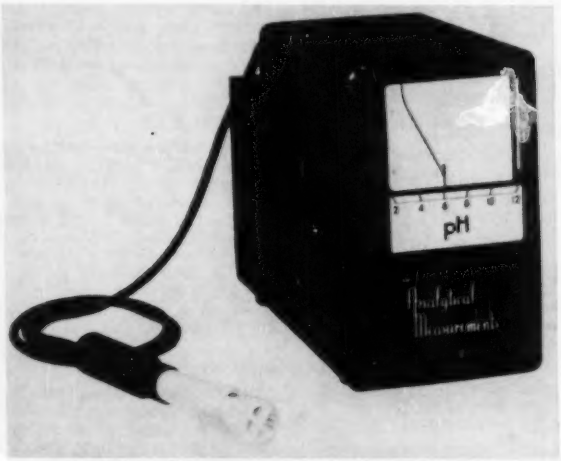


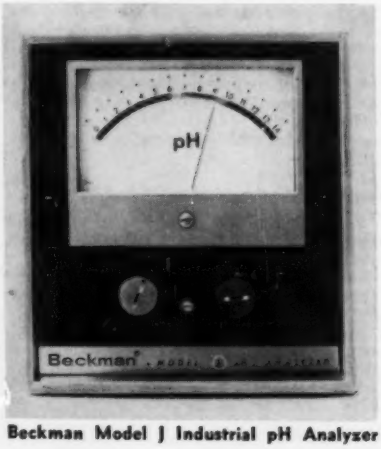
Analytical Measurements Recording pH meter

BECKMAN INSTRUMENTS, INC
Scientific and Process Instruments Div
Fullerton, Calif

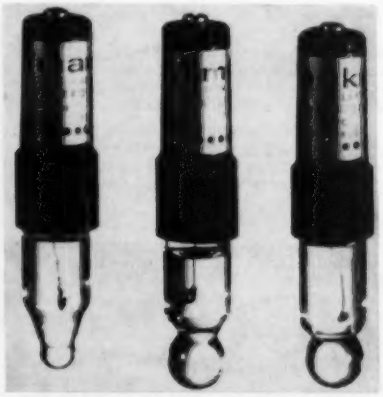
Model J Industrial pH Analyzer

This new system includes the Model J pH Analyzer, new electrodes, and new electrode mounting chambers. The new system is said to incorporate the reliability, flexibility, and convenience required for today's wide and growing range of process pH analyses. The analyzer employs an AC stabilized amplifier which provides stability of 0.01 pH/24 hrs. over −20°F to +122°F ambient temperature range. Output accuracy and meter sensitivity is ±0.02 pH for the full 0-14 pH range. The analyzer is available with both milliampere and millivolt output for use with any potentiometric or current recorders and controllers. It is also available with millivolt output only. Solid-state electronics, low-cost plug-in components and circuits are said to reduce long-term maintenance costs and simplify service. The Model J chassis slides out of the case on rails for rapid, simple inspection.

New glass and reference electrodes feature short, compact bodies for added strength. Cable connects with capscrew at electrode cap for quick connection and disconnection. New electrode station flow chambers have been designed for all application requirements. These units feature convenience of installation and maintenance. Bulletin pH-4030 is available.



Beckman Model J Industrial pH Analyzer



Beckman Electrodes for Model J Industrial pH Analyzer

CUSTOM SCIENTIFIC INSTRUMENTS, INC
P O Box 170
Kearny, NJ

FRL Environmental Test Chamber

The chamber is designed to insert in an Instron Tensile Tester from either the front or back and allows testing of samples at elevated or reduced temperatures. The range of the standard chamber is from −90° to +750°F. The unit is suitable for either floor or table model Instrons. Included with the chamber is the hydraulically operated carriage and control cabinet.

Custom Tension Recordograph Model CS-61B

This unit will measure the amount of tension applied in spinning, winding, warping and other processing. In keeping with the time, this model has been designed to increase the range and reduce the size and cost. The recorder uses transistors to reduce the size of the unit. The sensing head utilizes a linear transducer to increase the ranges and reduce the size. The range on the standard unit is 0 to 800 gms. In the cover of the recorder is mounted the capacitance system and holders for the sensing head and lead-in cable.

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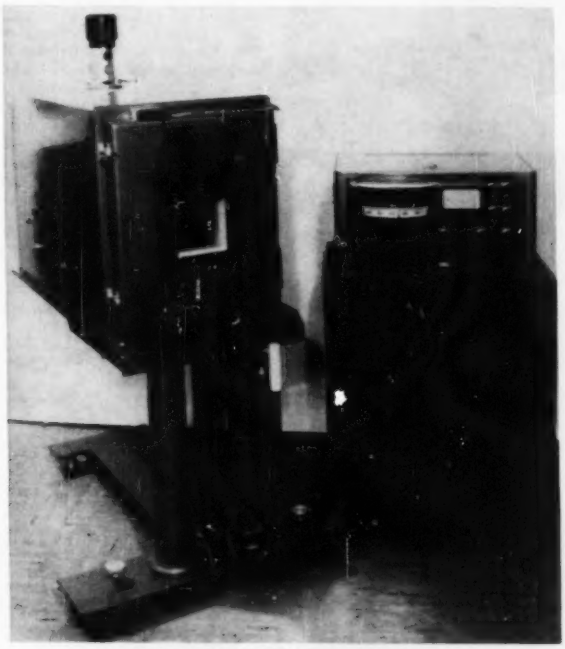
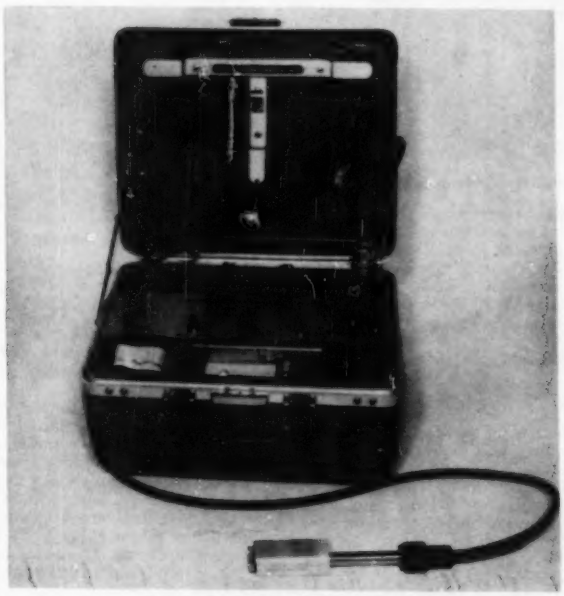


FRL Environmental Test Chamber



Custom Tension Recordograph

Hagan Chemonitor

HAGAN CHEMICALS & CONTROLS, INC
P O Box 1346
Hagan Center
Pittsburgh 30, Pa

Hagan Chemonitor

An instrument for conducting continuous on-stream analysis of critical constituents in liquids. The Chemonitor is said to duplicate continuously and automatically the principles of colorimetric analysis to determine and record the amount of a specific component. In the measurement of silica in the 0 to 300 ppb (parts per billion) range, the instrument is said to permit detection of concentrations as low as 5 ppb with plus or minus 2 ppb accuracy. Some typical applications of the Chemonitor are for analysis of boiler water, condensate and effluents from demineralizers, water softeners and waste disposal treatment plants. Single or multiple point analysis is possible. Multiple point analysis is achieved by installing a mechanical timer and solenoid actuated valves on additional sample lines.

Modular construction and use of amphenol connectors permit easy removal of

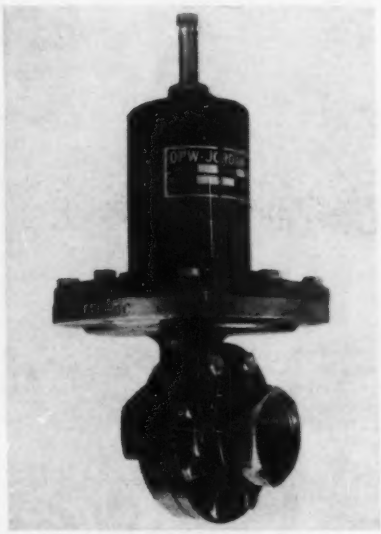
any component for inspection or service. All components are built into a rugged, dust-proof cabinet with a full-length back door for easy access. The Chemonitor is adaptable for either electronic or pneumatic systems. A Chemonitor Bulletin is available.

* * *

OPW-JORDAN CORP
6013 Wiehe Rd
Cincinnati 13, O

Back Pressure Regulators

A new line of back pressure regulators. The #165 series is stocked for immediate delivery in ¼"-2" sizes. The valves are suitable for 250 psi at 500°F in ductile iron and bronze bodies, and 300 psi at 600°F in stainless steel and cast steel bodies. Suitable for steam, water, air, oil, gas or chemical service. Designed to maintain a constant back pressure or to relieve pressure at a given set point, the self contained valve is said to give tight shut-off and accurate control during operation. The self-lapping, self-cleaning Sliding Gate* seats also help minimize maintenance. Five control ranges available from 3 to 170 psi. A new range, 40-170 psi in all sizes, is also available. A 2-page bulletin is available.

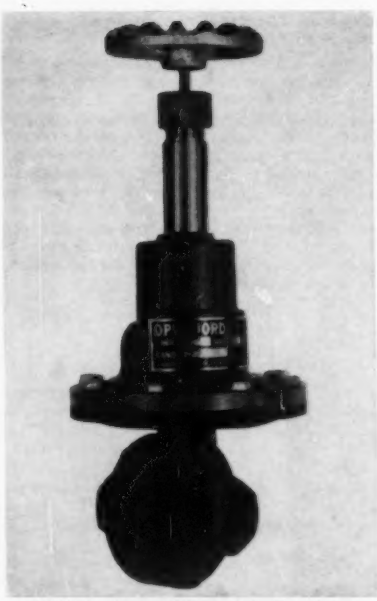


OPW-Jordan Back Pressure Regulator

Differential Regulator

A new differential pressure regulator. The #167 series valve is available in ductile iron or bronze from stock in ¼, ⅜, ½ and ¾ inch sizes. The pressure differential regulator is said to maintain a constant differential between medium passing through the regulator and any other medium loaded on top of the diaphragm. It has wide usage in the paper, chemical and other processing industries. Suitable for steam, water, air, oil, gas or chemicals. The valves are suitable for 250 psi at 450°F and 300 psi at 150°F. Designed for differential pressures up to 125 psi with control ranges 2-30, 15-70, 20-85, and 40-170 psi. The valve features self-cleaning, self-lapping stainless steel Sliding Gate* seats as standard and all metal construction. Complete engineering and technical information and prices available in 3-page PNB 8-61.

*Trademark



OPW-Jordan Differential Regulator

OPW-Jordan Pressure Regulator

Pressure Regulator

A new extra sensitive pressure regulator. Available from stock in ductile iron (#160A) or bronze (#260A) in ¼, ⅜, ½ and ¾ inch sizes. It is stated that, in a severe test on steam service with 20 psi inlet and 7 psi outlet, the valve showed a swing of only plus or minus .1 psi. Pressure regulation is said to be equal to piloted valves without the trouble associated with pilots; completely self-operated. Suitable for steam, water, air, oil, gas or chemicals. Pressure control range from .5 to 125 psi. Stainless steel self-cleaning and self-lapping Sliding Gate* seats are standard (features tight shut-off). Suitable for 250 psi at 500°F. Maximum pressure drop, 175 psi; minimum pressure drop, 3 psi. Complete engineering information, test results, photos, features and prices shown in 2-page PNB 5-61 and 8-page catalog J160-1.

*Trademark

PREMIER MILL CORP
224 Fifth Ave
New York 1, NY

Series 3000 Portable Dispersator

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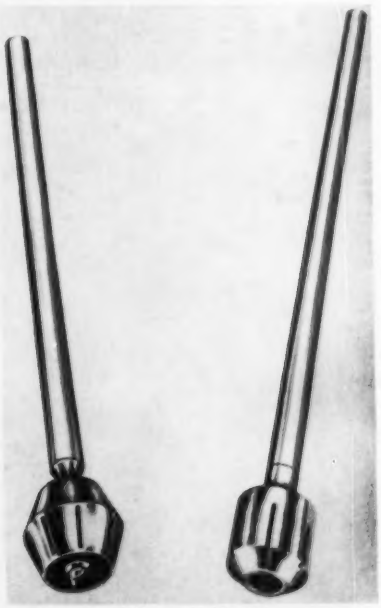

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(*continued on page 141*)

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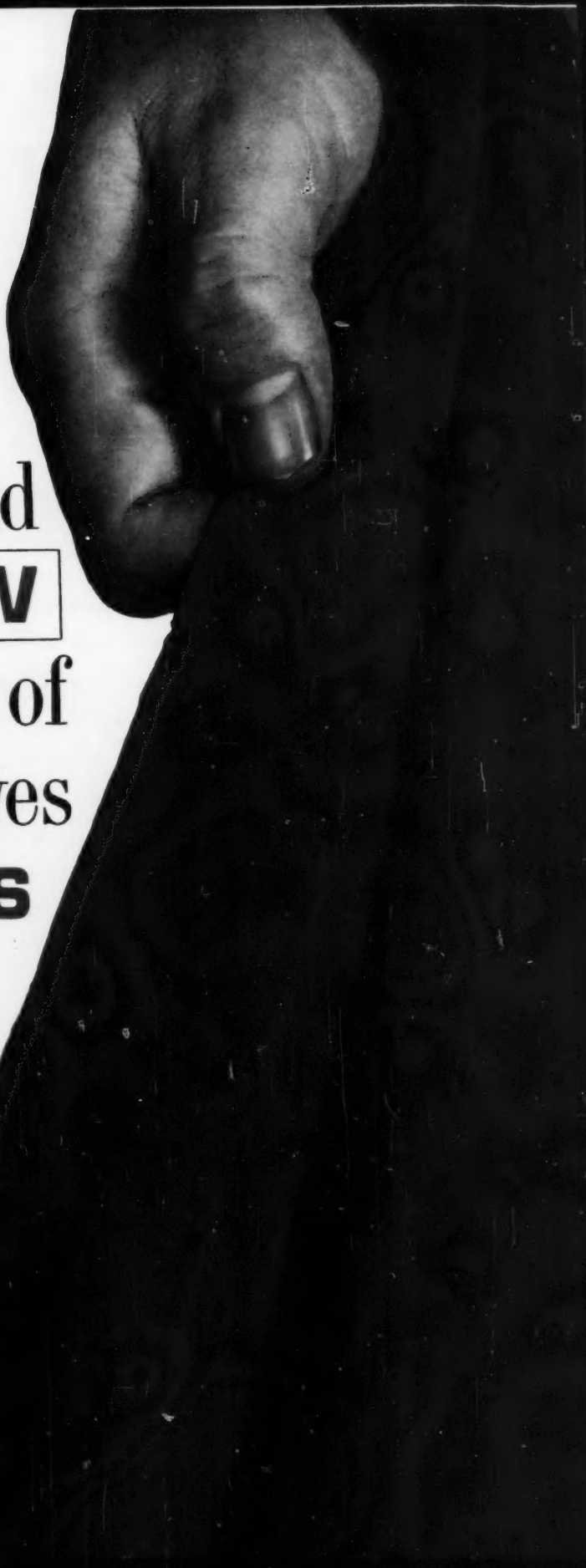

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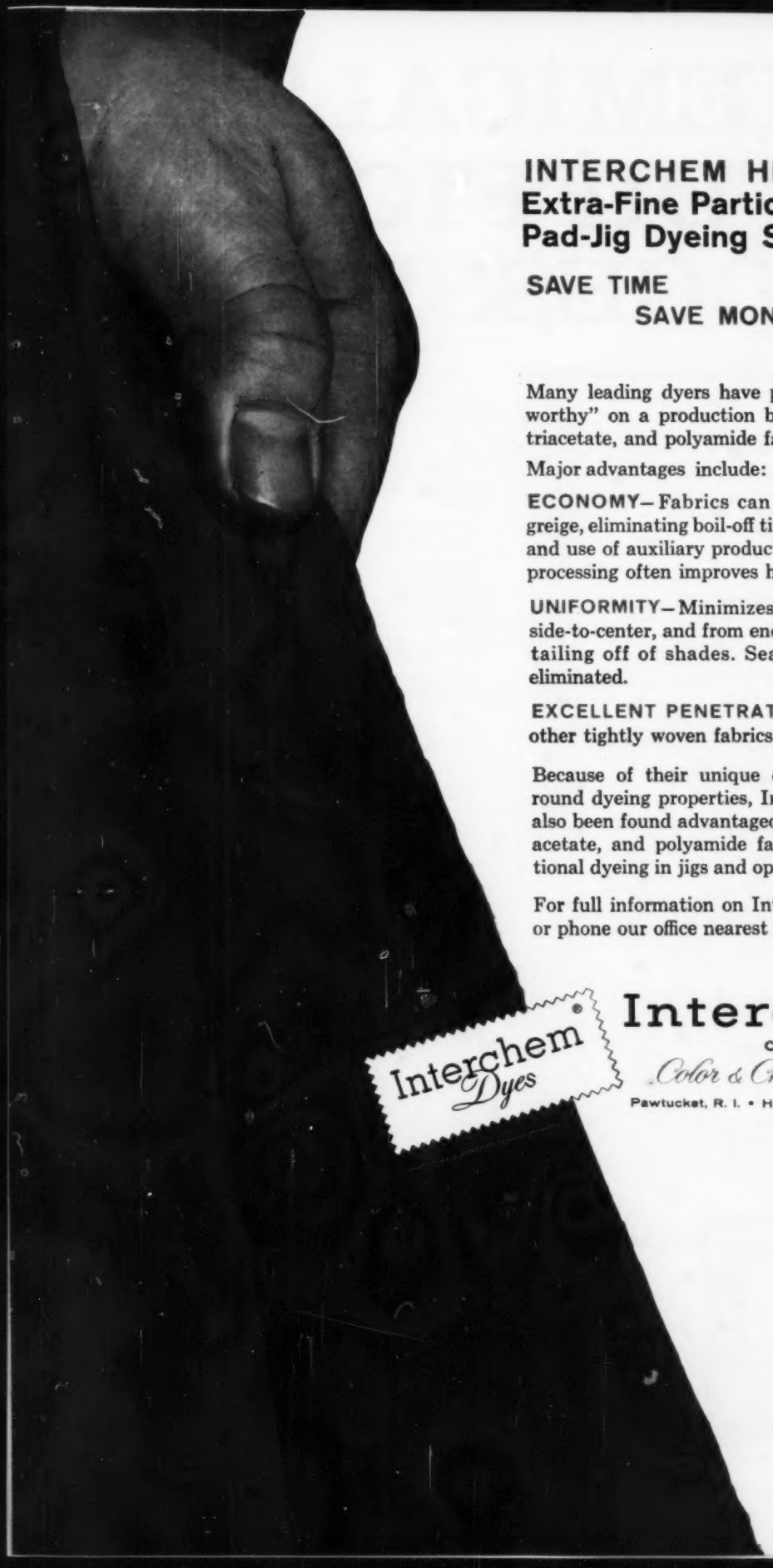

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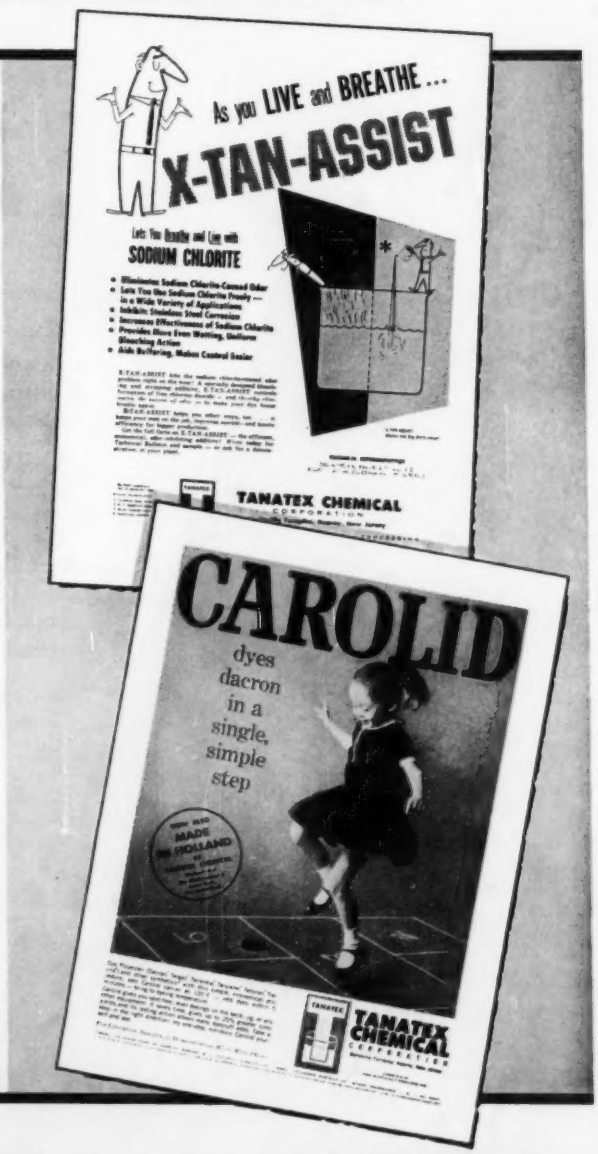

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December 11, 1961 No. 25

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MORRILL ELECTED TO SECOND TERM

Lynn, Mosheim, Sollenberger, Jones Elected VPs

ELLIOTT MORRILL will serve for another year as AATCC's president, as a result of his reelection at the Association's Annual Meeting held November 17 in Chicago.

Two incumbent vice presidents, William S Sollenberger of the Central Atlantic Region, and Joseph H Jones of the Western Region, also were reelected.

The New England Region and the Southern Region wil' offer the Association two new vice presidents in 1962. J Edward Lynn will succeed W George Parks as vice president from New England, and Joe D Mosheim will succeed A Henry Gaede as vice president from the South.

* * *

Mr Morrill is plant manager of the Indianapolis, Ind, plant of Corn Products Co. He has served as chairman of the AATCC Committee on Conventions, a member of the Executive Committee on Research, and the Publications Committee. He served as vice president, Western Region, 1957-1959. A member of AATCC since 1925, Mr Morrill was a Charter Member of the Mid-West Section of which he served as vice chairman, chairman and Councilor. He was chairman of the Publicity Committee for the 1947 Convention, Technical Programs chairman for the 1953 Convention and general chairman of the 1958 Convention.

ELLIOTT MORRILL

He attended Lombard College and the Univ of Chicago after which he was employed by Ciba, Geigy and Sandoz. In 1927, he joined Rit Products Corp. Through successive acquisitions and mergers, he remained with the organization, serving as chief chemist and technical director, and in 1954 became plant manager.

Mr Morrill holds the rank of Lt Colonel in the United States Air Force Reserve. From 1941 to 1946, he served with the Chemical Warfare Service of the U S Army Air Forces. Mr Morrill is the author of several papers and has been granted a number of U S and Canadian patents.

* * *

Joseph H Jones, general manager of Phoenix Dye Works, Cleveland, O, was elected vice president in 1960, and reelected in 1961. He had served AATCC earlier as a vice president from 1954 to 1956. He is a vice chairman of the Corporate Membership Committee, a member of the Executive Committee and the Committee on Membership and Local Sections. He served as chairman of the Mid-West

(*concluded on page 108*)

J EDWARD LYNN

WILLIAM S SOLLENBERGER

JOE D MOSHEIM

William S Sollenberger, assistant head, Dyeing and Finishing Division, Technical and Textile Service Department of the American Viscose Corporation, Marcus Hook, Pa, holds a BS in chemistry from Gettysburg College, from which he was graduated in 1943. In 1947, he took postgraduate special courses at Penn State Univ. In World War II, Mr Sollenberger served as captain in the 94th Infantry Division of the U S Army.

In 1960, Mr Sollenberger was appointed to fill out the unexpired term of C T Anderson, as vice president, Central Atlantic Region, prior to which he was a Councilor. He was elected vice president in 1961. He is a vice chairman of the Corporate Membership Committee, a member of the Executive Committee, and the Committee on Membership and Local Sections. He has been a member of most permanent committees of the Delaware Valley Section and served as vice chairman in 1957 and chairman in 1958.

He is a member of Committee D-13 of the American Society for Testing Materials.

JOSEPH H JONES

1961 National Convention———

OPTIMUM DYEING AND FINISHING OF SPECIFIC POLYESTER BLEND FABRICS (Part II)*

RALPH E LACY, V S SALVIN, and W A SCHOENEBERG

Celanese Fiber Co

A Division of Celanese Corp of America

(concluded from November 27 issue)

WOOL STAINING ON FORTREL/WOOL BLENDS

THE problems associated with the staining of wool by disperse dyes when dyeing polyester/wool blend yarns or fabrics are well known. Excessive staining of wool with disperse dyes gives poor lightfastness, objectionable perspiration fastness, and color migration or bleeding during drycleaning. Fortrel/wool blend fabrics can be piece dyed to give the fastness properties desired of a quality fabric. An understanding of the mechanisms by which disperse dyes stain wool and the practical application of these principles will minimize the staining on wool when piece dyeing Fortrel/wool fabrics.

The staining of disperse dyes on wool is a dyebath equilibrium process; therefore, as the disperse dye becomes more fully absorbed by the polyester fiber, the initial staining of the wool is decreased. Conditions which allow maximum exhaustion of the disperse dyes onto the polyester fiber should be used. Factors which affect the exhaustion of disperse dyes onto the polyester fiber are:

1) whether or not the polyester has been heat treated,
2) dyeing properties of the dye structures used,
3) use of an effective carrier in adequate concentrations,
4) sufficient dyeing time for exhaustion of dye, and
5) dyeing temperature.

Fortrel/wool fabrics may or may not be heat set prior to dyeing, depending upon the fabric construction. Fabrics which have a tendency to form winch creases should be heat set at 350° to 380°F prior to dyeing. Heat setting of the Fortrel at these temperatures lowers the dyeing rate. Data on the dyeing properties of a representative series of disperse dyes on heat-set Fortrel are shown in Table VIII, and they indicate that it is possible to select dyes which give a rapid exhaustion even on heat-set Fortrel.

TABLE VIII
Dyeing properties of disperse dyes on heat-set Fortrel

Dye	*Dyeing rate*	*Pile on*	*Suitability for adds*	*Build up on heat-set Fortrel*
Polydye Yellow GSFD	slow	poor	slow pick up	fair
Latyl Yellow 3G	rapid	good	satisfactory	good
Polydye Burnt Orange O	medium	fairly good	satisfactory	good
Amacron Orange SF	slow-medium	fairly good	satisfactory	fairly good
Latyl Cerise B	rapid	moderate color value	preferred over Cerise N	good
Latyl Cerise N	rapid	moderate color value	——	good
Polyester Red B	slow	poor	slow pick up	fair
Latyl Red MG	medium	good	satisfactory	very good
Cibacete Blue GLF	slow	poor	slow pick up	fair
Polyester Blue BLF	slow-medium	fair	satisfactory	good
Resoline Blue FBLD	medium	good	most satisfactory	very good
Foron Red FL	medium	fair	satisfactory	fair

TABLE IX
Mechanism of disperse dye staining on wool

Dyes		*Initial stain depth***	*Depth after perchlorethylene extraction*	*Depth after nonionic scour*	*Mechanism*
Celliton Yellow 4RL	0.5%	100	100	95	acid group
	2.0%*	130	120	120	
Polydye Yellow 3G	0.5%	15	10	5	secondary forces
	2.0%	20	15	10	
Latyl Cerise B	0.5%	20	20	10	secondary forces
	2.0%*	25	20	10	
Polyester Red B	0.5%	70	70	35	secondary forces
	2.0%	140	140	75	
Resoline Blue FBL	0.5%	70	70	40	secondary forces
	2.0*	110	90	65	
Polyester Blue GLF	0.5%	50	50	30	acid group (secondary forces)
	2.0%	140	130	100	

*Some mechanically held surface dye in 2% dyeings.
**Visual estimates based on a standard depth rated as 100.

To study further the mechanism of disperse dye staining on wool, a thorough evaluation was made of the relative staining properties of 100 representative disperse dyes. The dyeing procedure used was the same as that described in the first section of the paper. This work suggests that disperse dyes stain wool by at least the following three mechanisms:

1) Dyeing by an ionic reaction of the acidic groups contained in some disperse dyes, such as CI Disperse Yellow 23 and CI Disperse Blue 27, with the basic dye sites of the wool.
2) Physical adsorption of aggregated particles of disperse dye on the scaly surface of the wool. At high dyeing temperatures and acid pHs, there is slow aggregation of certain disperse dyes. This type of staining is detectable by extraction with perchlorethylene solvent.
3) Dyeing by secondary forces. This is similar to the solution mechanism by which acetate and nylon dye with disperse dyes. This type of staining on wool, which is due to hydrogen bonding, may be reduced by use of leveling agents.

Table IX illustrates how perchlorethylene extractions and scouring with leveling agents can be used to show the mechanisms by which six disperse dyes stain wool.

Perchlorethylene extracts only

*Presented by Ralph E Lacy at the AATCC National Convention, Statler Hilton Hotel, Buffalo, NY, on September 28, 1961.

mechanically held surface dyes; whereas, a scour with certain nonionic leveling agents, such as Igepal CO-630 and TSPP, will remove dye held by secondary forces as well as surface dye which is mechanically held on the wool surface. Thus, the use of both a perchlorethylene extraction and a scour with a nonionic leveling agent permit a truer evaluation of the staining mechanism. Where the staining on the wool is the result of an ionic reaction with an acid group on the dye, the stain is not appreciably removed by either a perchlorethylene extraction or a nonionic leveling agent scour.

Dyes such as prototypes of Polydye Yellow 3G, or the anthraquinone reds, such as Latyl Cerise B, show low saturation values on wool as demonstrated by the lack of shade buildup in going from a 0.5% to a 2.0% (owf) dyeing on 100% wool fabric. Azo dyes, such as Polyester Red B, and the anthraquinone blues of the Polyester Blue GLF type, show high saturation values on wool. The Resoline Blue FBL type has intermediate saturation value.

The principles discussed, ie, 1) the use of disperse dyes with low intrinsic saturation values for wool, 2) the use of dyes having low aggregation properties, 3) the use of dyes with rapid dyeing rates and good exhaustion properties on polyesters, have permitted the selection of a number of dyes for Fortrel/wool blends and the development of piece-dyeing procedures for maximum fastness properties. The dye recipe and procedure shown in Table X illustrates these principles.

Besides the selection of dyes to reduce staining, some advantage is obtained by the use of surfactants in the dyebath which are useful in preventing aggregation of dyes and in preventing surface dye from being absorbed into the wool. Surfactant materials which have a stabilizing and dispersing action, such as Tamol N, when used in quantities of 2 to 3% (owf), have been found effective. Despite exhaustive studies, no pretreatment of wool is known which would reserve it to disperse dyes. Any surfactant pretreatment effect can be traced to absorption of surfactant by wool, which then makes the disperse dye staining more readily removed in a subsequent scour.

A number of aftertreatments have been investigated to reduce the staining of disperse dyes. Where the staining is due to physical adsorption of the dye particles, the use of good dispersing agents, such as nonionics of the desired cloud point, Igepal CO-630, or solubilizing agents for disperse dyes, as combinations of Tamol N and soap, will be effective. The staining of disperse dyes due to secondary forces is reduced by Tamol N and soap. The use of an ammonia and hydrosulfite stripping bath is effective for azo dyes; however, it is not effective on CI Disperse Blue 27.

TABLE X
Typical procedure for piece dyeing 55/45 Fortrel/wool fabric

Shade: Brown

1) On a wool-type beck in a 30:1 liquor ratio, add 4.0 g/l Carolid and 0.5 g/l monosodium phosphate at 120°F.
2) Run five minutes and add:
   1.5% Resoline Blue GRL
   1.0% Latyl Cerise B
   1.8% Polydye Yellow 3G.
3) Run 10 minutes at 120°F. Raise the bath temperature to 203° to 210°F over 30 minutes.
4) Run two hours at 210°F. Make adds as necessary to match shade.
5) When on shade, overflow rinse hot, then cold rinse.
6) In a new bath at 160°F, scour with 0.5 g/l Igepal CO-630 and 1.0 g/l TSPP for 30 minutes. Overflow rinse.
7) In a new bath at 100°F, add 0.5 g/l Igepon T and 5.0 g/l ammonium acetate. Run 10 minutes.
8) Add 3.0% Cibalan Brown BL and 0.8% Cibalan Blue BL.
9) Raise temperature slowly to 210°F over 50 minutes. Run one hour at 210°F. Make adds as necessary to match shade.
10) Rinse hot and then cold.

TABLE XI
Soft finishing of Fortrel/wool fabrics

1) Preset
2) Dolly washer scour
3) Tenter frame
4) Brush and shear
   (gas singe — only on critical constructions)
5) Full
6) Wash
7) Piece dye (if required)
8) Tenter frame
9) Heat set at 350 to 370°F
10) Shear as for wool
11) Press
12) Semidecate or full decate as required

PILL-RESISTANT FINISHING OF SOFT-FINISHED FORTREL/WOOL FABRICS

The achievement of satisfactory pilling performance on constructions of standard polyester/wool worsted fabrics required a clear-cut finish, involving thorough shearing and singeing operations. Although these fabrics met with wide consumer acceptance, they were characterized by a lean, crisp, fabric handle, lacking the surface texture associated with similarly constructed all-wool fabrics. With the introduction of modified polyester fibers with lower pilling tendencies, interest shifted toward the production of softer, wool-like fabrics, produced through fulling. Both regular Fortrel and the low-pilling Fortrel wool blending variant can be blended with wool and finished to give a pill-resistant, soft wool-like hand.

To obtain a flannel-like effect, the wool must be uniformly brought to the surface in fulling to achieve a satisfactory degree of matting. Fabric constructions which allow the wool to migrate readily to the surface in fulling are those containing single yarns of low twist, in open constructions. These constructional features, which lend themselves best to fulling, are unfortunately those which most aggravate pilling in polyester/wool fabrics. Even modified polyester fibers with their inherently improved pill resistance will in many cases perform unsatisfactorily unless certain precautionary steps are taken.

Principles used to produce pill-resistant, soft-finished Fortrel/wool fabrics are:

1) the use of short-staple, 1½", fine-grade wool which, in blends with long-staple, 3½", polyester staple, will have greater mobility and thus migrate to the fabric surface during scouring and fulling;
2) use of slightly more open fabric constructions employing slightly longer floats in weaving, ie, a 2 × 2 twill is more desirable than a 2 × 1 twill weave;
3) brush, shear and/or singe fabric prior to fulling in order to remove all polyester fibers from the fabric surface; and
4) full to bring the wool to the surface.

In Table XI, a suggested finishing procedure for soft-finished Fortrel/wool fabrics is given.

The fabric should be preset by either crabbing or wet or dry decating before scouring to prevent distortion and the formation of creases in the early stages of fulling. This operation might be eliminated on constructions which are not sensitive to crease formation in fulling.

All surface fibers must be removed prior to fulling to ensure that the pile obtained as the result of fulling is all wool. This is necessary to obtain good pilling resistance and to allow an optimum matting of the wool fibers during fulling. The shearing should be carried out by the standard technique adopted for a closely sheared, "clear finished" polyester/wool fabric. Singeing and shearing should be employed for constructions which are sensitive to pilling.

Fabrics should be tacked prior to fulling and the direction of the fabric might be reversed one or more times to minimize the formation of

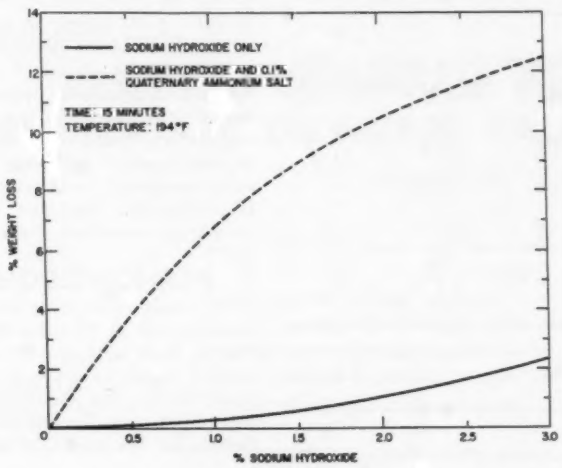


Figure 1
Effect of quaternary ammonium salt on alkaline hydrolysis of Fortrel

creases. Experience has shown that fulling creases may form suddenly, depending on the type of fabric being finished. The fabric should therefore be examined at regular intervals on styles which are not familiar to the finisher. While the important factor in fulling is to raise a cover of wool on the surface of the fabric, some warp and filling shrinkage will occur. Two to four percent shrinkage in each direction during fulling will usually produce enough cover for most fabric constructions. If fulled fabrics develop creases which are not too severe, they may be removed by heat setting the fabric at the dry width.

After dyeing, the fabric should be finished as for an all-wool fabric. The fabric should be sheared to the pile required to leave sufficient cover on the surface to give an attractive handle and appearance.

ACHIEVEMENT OF SILK-TYPE HANDS ON FORTREL/CELLULOSIC FABRICS

A caustic-soda boil-off treatment of 100% filament polyester fabrics to give a softer hand is a fairly well-established commercial practice. The caustic soda etches the outer surface of each polyester filament by a hydrolysis reaction, thus imparting more texture to the filament surface and allowing greater mobility of the yarns within the fabric structure. This principle, in combination with mechanical and chemical finishing techniques, has been used to develop soft, silk-like hands on Fortrel/cellulosic blend fabrics for blouse and lingerie applications.

Fabric constructions must be designed with sufficient strength to allow for a controlled weight and strength loss of the polyester in hot caustic soda. A satisfactory degree of softening may result in a weight loss of up to 10% of the Fortrel and a strength loss of 20-40%.

It has been established that the use of certain quaternary ammonium compounds, such as Synthramine A, accelerates the hydrolysis reaction of caustic soda. This is shown in Figure 1. Increases of Synthramine A over the recommended 0.1% concentration do not appreciably affect the rate of acceleration.

Laboratory and plant trials have shown that a controllable weight loss can be achieved at temperatures of 185° to 190°F even though processing time has been appreciably reduced by the use of Synthramine A. A processing time of thirty minutes at the above temperatures is normally used. Control in the percent weight loss on the Fortrel is exercised by varying the caustic soda concentration within the 1.0 to 2.5% range, depending upon fabric construction and the degree of softening desired. The optimum conditions must be determined experimentally for each construction.

Singeing of the fabric for pilling control can be done before caustic treatment where the fabric is to be finished white, or if the fabric is to be dyed by a thermal fixation process. The melt beads formed in singeing can be largely removed in the caustic treatment. Where fabrics are beck dyed after caustic treatment, the singeing should follow the dyeing.

TABLE XII
Typical finishing procedure for a silk-type hand on Fortrel/cotton broadcloth*

1) Winch desize and scour.
2) Dry and heat set for 15 seconds at 410°F on the tenter frame.
3) Hot calender with 20 to 30 tons pressure at 300° to 350°F, 20 yards per minute.
4) Alkaline scour on the beck with a 2.0% caustic soda solution and 0.1% solution of Synthramine A in a 30:1 liquor ratio. Raise temperature from 100°F to 190°F in 30 minutes. Run at 190°F for 30 minutes. Cool, rinse and neutralize.
5) Bleach on the beck.
6) Dye on the beck.
7) Dry and singe.
8) Apply silicone type finish according to hand requirements:
   15.0 g/l Decetex 104
   4.0 g/l Catalyst 104
9) Cure at 310°F for four minutes, wash and dry.
10) Final calender with 15 tons pressure at 260°F.

*Broadcloth construction: 65/35 Fortrel/cotton 40/1 warp and filling 110 x 66 greige construction

The desired silk-like hand cannot be obtained by caustic treatment alone. A combination of heat setting, hot calendering or Schreinering, caustic treatment to at least 10% weight loss on the Fortrel, and application of a silicone-type finish produces the most desirable silk-type hand for blouse and lingerie applications.

Table XII lists a typical procedure for achieving a silk-type hand on 65% Fortrel/35% cotton broadcloth fabric woven from a 40/1 cotton warp and filling yarn in a 106 × 66 greige construction. The effect of this finishing technique on strength properties of various Fortrel/cotton fabrics is shown in Table XIII.

SUMMARY

A comprehensive evaluation and characterization of the dyeing and fastness properties of over two hundred disperse dyes on Fortrel polyester fiber has made possible the classification of dyes into groupings, based on use properties rather than chemical structure. From those groupings, the practical dyer can select dyes which best solve his dyeing problems. Examples of dye selections for maximum fastness properties, for heavy shades such as navies, and for use in thermal fixation processes have been discussed.

Sublimation of disperse dyes during heat treatment, resin curing, or consumer ironing has presented some problems in the development and styling of fancy yarn-dyed fabrics containing white pattern areas. By a critical selection of dyes, commercial yarn dyeing procedures which give outstanding sublimation fastness on Fortrel/cotton have been developed.

TABLE XIII

Physical properties of Fortrel/cotton broadcloths finished for a silk-type hand

Fabric construction	*Finishing treatment*	*Weight (oz/sq yd)*	*Grab tensile filling (lbs)*	*Elmendorf tear filling (lbs)*
I. Broadcloth — 110 x 66 Warp and filling — 40/1 65% Fortrel/35% cotton	A	3.44	57.4	2.1
	B	3.24	39.4	2.1
	C	3.13	36.7	1.8
	D	3.08	33.0	1.7
II. Broadcloth — 106 x 70 Warp — 40/1 65% Fortrel/35% cotton Filling — 50/1 65% Fortrel/35% cotton	A	3.19	46.8	1.8
	B	2.99	33.0	1.6
III. Broadcloth — 110 x 68 Warp — 40/1 65% Fortrel/35% cotton Filling — 50/1 100% Fortrel	A	3.28	71.9	2.8
	D	2.83	43.1	2.5

Finishing treatments: A — Scoured, heat set, calendered.
B — Scoured, heat set, calendered, winch scoured with 1.0% caustic soda solution, dye, silicone finish.
C — Scoured, heat set, calendered, winch scoured with 2.0% caustic soda solution, dye, silicone finish.
D — Scoured, heat set, calendered, winch scoured with 2.0% caustic soda solution, dye, silicone plus resin finish.

These procedures have permitted the production of yarn dyed fabrics containing white pattern areas. In the development of these procedures, it was necessary to study the effect of time and temperature on the sublimation performance of a range of disperse dyes.

Basic work on the mechanism of disperse dye staining of wool in piece dyeing polyester/wool blends indicates that wool is stained by at least the following three mechanisms:

1) physical adsorption of aggregated disperse dye particles on the wool surface,
2) dyeing by an ionic reaction of certain disperse dyes containing acidic groups, and
3) dyeing by secondary forces similar to the solution mechanism by which acetate and nylon are dyed with disperse dyes.

The selection of dyes with low saturation value on wool, with low aggregation properties, and which have rapid dyeing rates and good exhaustion properties on Fortrel, have made possible the development of piece-dyeing procedures which give excellent colorfastness on Fortrel/wool fabrics.

Fortrel/wool fabrics can be finished to give a pill resistant, soft, wool-like hand by:

1) modification of the yarn and fabric construction which allow more mobility to the wool;
2) brushing, shearing and/or singeing the fabrics prior to fulling to remove all loose fiber from the fabric surface; and
3) fulling the fabric to raise a cover of all wool on the fabric surface.

Soft, silk-like hands for blouse and lingerie applications have been obtained for Fortrel/cotton broadcloth and batiste fabrics by a combination of mechanical finishing, employing hot calendering or Schreinering, caustic treatment, and the use of silicone-type chemical finishes.

ACKNOWLEDGMENTS

The authors wish to express their appreciation to Thomas Westarp and Martin Kallman, who directly participated in laboratory and plant trials from which the technical data for this paper was developed, and Fred Fortess for his guidance in this work.

TRADEMARKS

Cekryl—Althouse Chemical Co
Calcosperse—American Cyanamid Co
Synthramine—Arnold Hoffman & Co, Inc
Scorch Tester—Atlas Electric Devices Co
Arnel—Celanese Corp of America
Albatex, Cibacete, Cibalan, and Cibanone—Ciba Co, Inc
Decetex—Dow Corning Corp
Dacron and Latyl—E I duPont de Nemours & Co, Inc
Polyester—Eastman Chemical Products, Inc
Fortrel—Fiber Industries, Inc
Esterophile—Francolor, Inc
Setacyl—Geigy Chemical Corp
Celliton, Emulphor, Genacron, Igepal, and Igepon—General Aniline & Film Corp
Teryiene—Imperial Chemical Industries Ltd
Polydye—Interchemical Corp
Amacron—Koppers Co, Inc
Polynal—National Aniline Division, Allied Chemical Corp
Palanil—Putnam Chemical Corp
Tamol—Rohm & Haas Co
Foron—Sandoz, Inc
Rhodiaceta Thermotester—Societe DAM Lyon-France
Cassopar—Sou-Tex Chemical Co, Inc
Carolid and Tanapon—Tanatex Chemical Corp
Resoline—Verona Dyestuffs

SOS FIRST CALL
IDEAS AND PAPERS—1962 TECHNICAL PROGRAM

PRELIMINARY interest in the 1962 Annual Convention at the Atlanta Biltmore November 14-17 would indicate a record attendance and plans are already being made for a record in the presentation of the Technical Program. It is the expectation of the Technical Program Committee to present an extensive program, both in scope and in technical depth. This Committee is headed by J David Reid, SRRL, PO Box 19687, New Orleans, La, and by Max Ferguson, Allied Chemical Corp, Atlanta, Ga. Other members assisting Dr Reid on the compilation of the program itself are Fred Fortess, Celanese Fibers Co, Box 1414, Charlotte, NC, and J L Taylor, Georgia Tech, Atlanta, Ga. Some offerings of papers for inclusion in this program are in the following areas: "Progress in 'wash-and-wear' finishing"; "Textile fibers, both natural and man-made, and how their properties affect dyehouse processing"; "Requirements for the ideal textile course"; "New Dyeing and finishing machinery", etc.

Dr Reid would like to have further ideas and suggestions. If you or your company has the paper you have completed, underway, or under consideration, either fitting into the above categories or supplementing them, please write to Dr Reid if you believe this would be of interest to the AATCC Atlanta meeting. If you have suggestions of areas not covered above, but which will be of interest for papers or round-table discussions, send them along.

AATCC Research———

RESEARCH COMMITTEE PROGRESS REPORTS PRESENTED AT DELAWARE VALLEY SECTION MEETING

October 27, 1961

PANEL

GEORGE S WHAM, chairman
Technical Committee on Research
ALBERT C NUESSLE, chairman
Committee RA35
HUGH R DAVIDSON, chairman
Committee RA36
GRAHAM M RICHARDSON, chairman
Committee RA61
VICTOR S SALVIN, chairman
Committee RA33

I. Damage Due to Retained Chlorine—A Brief Look at the Work of AATCC Committee RA35

ALBERT C NUESSLE
Chairman, Committee RA35

Damage Due to Retained Chlorine

WHEN the Chlorine Damage Committee was organized, quite a few years ago, one of the first official acts was to send a set of resin-treated fabrics to the American Institute of Laundering for commercial laundering tests. To the astonishment of many of the Committee members, none of the fabrics showed much damage, not even the ones treated with urea-formaldehyde. Some members expressed the opinion—and not entirely in jest—that since there was no problem, the Committee might as well disband. Others stated that the results came as no surprise, since chlorine damage in end use usually showed up in the form of yellow discoloration rather than strength loss.

However, on further deliberation it was recalled that the Committee had been assembled more or less by popular demand, due to a small but persistent incidence of tensile strength loss attributable to retained chlorine. Presumably such damage occurred under conditions of chlorination or scorching that were more drastic than normal. The objective of the Committee was and should remain the devising of a test to measure the relative tendency of textile fabrics to pick up chlorine from a bleach bath and to lose strength when subsequently ironed.

Now it is not my intention to review the history of Committee RA35; a rough idea of the scope of the work can be obtained from the reports of the successive chairmen (Etchells, Epelburg, Walmsley, Aurich, Nuessle) to the Technical Committee on Research. But it is no exaggeration to say that the original objective has been pursued steadfastly and in the face of considerable difficulty.

Most of the difficulty has centered on the question of reproducibility of the test, particularly between different laboratories. Improvement in interlaboratory precision has been the primary goal of the Committee since its inception.

There are of course, other objectives. One of these is the recurring question of correlation with end use, which in the past year or two has been given an increasing share of attention. This and other phases of the over-all problem will be discussed below under appropriate headings.

REPRODUCIBILITY OF THE TEST———Chlorine damage involves at least four fundamental processes:

1) reaction of the hypochlorite with the resin to form a chloroamide,
2) washing out of the excess hypochlorite and the by-products (such as NaOH),
3) conversion of the chloroamide to hydrochloric acid during scorching, and
4) hydrolysis of the cellulose by the acid, with resulting loss of strength.

Each of these processes must be carried out in a reproducible manner in order for the final result to be reproducible.

It is for this reason that much attention has been given to procedural details of the test. Such variables as pH of the hypochlorite and of the rinse water, the concentration of hypochlorite, the time and temperature of scorching must be carefully controlled. As a result, our present test, AATCC Tentative Test 92-1958, is of necessity a complicated one. But as was pointed out on

an earlier occasion, we did not set out purposely to design a complicated test; rather, the complications were introduced as required in order to obtain sufficient reproducibility.

Since 1957, five standard test fabrics have been prepared and subjected to interlaboratory testing, with results as shown in Table I. We may conclude that, on the average, the various laboratories will agree among themselves to about plus or minus ten percent. Within a given laboratory, reproducibility will usually be even better than this; only one fabric (Ib, a more highly cured version of Ia) showed as great a variation within as between laboratories.

It will be observed that the original high standard started out as an intermediate standard, but gradually drifted upward on storage. This tendency of certain resin-treated fabrics to show increased chlorine damage with time was discovered independently and almost simultaneously by Smith (British Ind Plastics), Mosher (Arkansas Co, Inc), and the Resin Formulations Subcommittee of AATCC Committee RA35. This drifting on storage is one of the many difficulties with which we have had to contend. We greatly reduced the tendency to drift by padding the subsequent test fabrics with 0.1% sodium bicarbonate, a mild alkaline buffer, following the afterwash.

The chlorine damage test has always given fairly reproducible results at the very high and very low ends of the scale. It now appears that a reasonably satisfactory degree of reproducibility is being obtained in the middle range as well. This may be attributed in large degree to the revision of the test procedure early in 1958, and perhaps in small degree to the steps taken to overcome drifting; but it is probable that much of the credit must also go to the fact that most of the various participating laboratories have become intimately familiar with the test and are following it closely.

In every recent test series, most of the results have been grouped rather narrowly, with a few laboratories deviating moderately and one or two laboratories varying widely. Much of our recent effort has been to assign causes to this wide variation.

Accordingly, Fabric Ic has been subjected to considerable study not only in round-robin testing by the sixteen cooperating laboratories making up the full Committee, but also by special groups of three or four laboratories within the various Subcommittees. Factors which once again have been found to exert a definite influence on the results are:

1) concentration of available chlorine in the bath,
2) time of chlorination,
3) temperature of chlorination,
4) pH of the chlorination bath,
5) time of scorching, and
6) temperature of scorching.

Quantitative data on these variables are given in Tables II and III.

Despite the interlaboratory variation (results from Laboratory B are consistently high, while those of Laboratory D are consistently low) the trends are clear cut: damage increases with concentration, time, and temperature of chlorination, and with time and temperature of scorching, and decreases with pH of the chlorination bath. It is interesting to note that, under the milder conditions (lower concentration, higher pH, etc), the interlaboratory precision is not as good as it is under the "standard" conditions or under the more drastic conditions.

Table I
Interlaboratory results on standard test fabrics

Test fabric	*When tested*	*Average damage**	*Number of laboratories*
Original high std	1957	32 ± 26	6
" " "	1958	73 ± 11	15
" " "	1958	69 ± 7	11
Ia	1960	44 ± 11	16
Ib	1960	17 ± 11	16
II	1960	3 ± 6	16
Ic	1961	40 ± 13	16
"	1961	46 ± 8	14

*Computed as $\frac{Tc-Tcs}{Tc}$, as in AATCC 92-1958.

Table II
Effect of chlorination variables (Fabric Ic)

Variable	*Values studied**	*% Damage — Laboratory A*	*B*	*C*	*Average values*
Conc of available chlorine (%)	0.125	34	48	25	36
	0.25 (standard)	45	55	48	49
	0.50	55	72	50	59
Time of chlorination (min)	7.5	33	57	15	35
	15 (standard)	47	60	49	52
	30	60	70	71	64
Temp of chlorination (°F)	67	36	61	37	45
	77 (standard)	44	62	39	48
	87	55	69	47	57
pH of chlorination bath	8.5	56	70	43	56
	9.5 (standard)	42	58	29	43
	10.5	41	41	5	29

*All variables were kept at the "standard" level except the one being studied.

Table III
Effect of scorching variables (Fabric Ic)

Temperature (°F)	*Time (secs)*	*% Damage — Laboratory A*	*D*	*E*	*Average values*
300	10	0	0	8	3
	20	14	0	36	17
	30	24	2	38	21
330	10	29	4	28	20
	20	40	10	35	28
	30	50	25	41	39
365	10	48	23	39	37
	20	50	44	45	46
	30 (standard)	52	41	45	46
400	10	55	36	47	46
	20	55	49	53	52
	30	55	42	67	55

It might also be pointed out that the data on factors 1 to 4 are in good agreement with those of an earlier study on the original high-standard fabric.

Rinsing is another important variable. While no recent study has been made, previous data show that the pH of the rinse water is important, higher pH yielding lower damage. This is presumably due to the fact that the more alkaline rinse water is less effective in removing the NaOH byproduct (mentioned earlier) that would otherwise neutralize the hydrochloric acid liberated during scorching. Number of rinses (beyond three or four), bath ratio, and rinse temperature do not appear to be as important as pH.

Fortunately, there are a number of variables that do not exert any appreciable effect on the results. Among these are:

1) pressure on the wringer (studied over the range 55% to 120%),
2) hours conditioning before scorching (range four hours to 23 hours),
3) hours conditioning before tensile testing (range four hours to 66 hours), and
4) amount of agitation during chlorination (from none to once each minute).

Considering all of the above factors, we have con-

Table IV
Effect of Chlorine concentration and temperature

Temp (°F)	% Cl	% Damage on each test fabric* High std	Ia	Ib	II
80	0.25	84 (85,83)	48 (50,45)	16 (14,17)	2 (0,3)
140	0.10	86 (88,83)	52 (54,49)	34 (33,35)	3 (2,4)
	0.05	84 (86,81)	41 (50,32)	16 (21,10)	0 (0,0)
	0.025	85 (85,85)	22 (27,17)	4 (5,2)	2 (2,2)

*Notes: The high standard has drifted even higher since earlier tests. The values in parentheses are the individual values from each laboratory.

Table V
Effect of pH of the chlorination bath*

pH	Fabric High std	Ia	Ib	II
8.5	83	68	47	0
9.5	83	55	24	6
10.5	84	42	17	5

*0.10% Cl at 140°F; other conditions as in AATCC 92-1958

Table VI
Home laundering with different concentrations of bleach

Lab	Bleach conc % avail chlorine	Tensile Strength Loss* Untreated fabric 10 Washes	30 Washes	Resin-treated fabric** 10 Washes	30 Washes
F	None	7	4	+3	13
G		+5	2	+9	1
H		3	5	2	4
Average		2	4	+3	6
F	0.01	9	12	5	42
G		0	17	+2	12
H		7	14	13	39
Average		5	14	5	31
F	0.02	12	27	10	53
G		14	15	9	16
H		11	24	19	53
Average		12	22	13	41
F	0.04	14	30	19	57
G		11	27	11	27
H		23	54	34	75
Average		16	37	21	53

*Plus sign indicates gain in strength.
**Original high standard

Table VII
Damage after ten home launderings, with and without the scorching step

Conditions Drying	Scorching		% Damage on each test fabric High std	Ia	Ib	II	Ic
Hang dry	None		9	17	3	10	13
Tumble dry			17	13	2	10	10
Iron dry			11	11	1	7	16
		Av	12	14	2	9	13
Hang dry	30s/365°F		88	52	20	+2	52
Tumble dry	(once only)		93	54	10	9	56
Iron dry			95	53	24	2	49
		Av	92	53	18	3	52
(AATCC 92-1958) from earlier data			(83)	(50)	(14)	(0)	(43)

cluded that disagreement in test results between two laboratories is due not to any single large variable, but rather to the cumulative effect of a number of smaller variables. It is for this reason that we emphasize that the test method must be carefully followed if reproducible results are to be obtained.

CORRELATION WITH END USE——It has been suggested from time to time that AATCC Tentative Test 92-1958 uses too high a concentration of chlorine (0.25%) at too low a temperature (80°F) and that the results are therefore completely meaningless. However, very similar results will be obtained if the concentration of chlorine is reduced to 0.05% and the temperature is increased to 140°F. As the latter conditions are only slightly accelerated, we may conclude that the chlorination step in AATCC 92-1958 is more practical than some persons have supposed. Average data from two cooperating laboratories are given in Table IV.

It is also interesting to note that the fabrics showing high and low damage will do so regardless of the chlorinating conditions (in the range studied). It is the fabrics in the intermediate range that are most susceptible to changes in test conditions. This is further emphasized by the data in Table V, showing that the pH of the chlorinating bath is critical only in the intermediate range. The data are from a single laboratory.

However, it should further be emphasized that, in all of the above, the test fabrics were subjected to a scorching step, 30 seconds at 365°F. The importance of scorching conditions was shown in Table III. It is even further emphasized by the results of two series of home launderings. The first of these was run in 1959 on the original high-standard fabric. The three cooperating laboratories were selected because they carry out many such tests in the course of their everyday work. The study included strength tests after five, 10, 20, 30, and 50 washes in Tide plus bleach; but for simplicity only the 10 and 30 wash data are shown (see Table VI).

From the average values, it is evident that the level of damage increases with hypochlorite concentration, as would be expected. However, if we compare the resin-treated fabric with the untreated, we will note that the relative damage

$$\frac{\text{(D resin)}}{\text{(D untreated)}}$$

is slight after 10 washes, and only moderate after 30 washes. In only one instance (0.01%, 30 washes) does the ratio

$$\frac{\text{(D r)}}{\text{(D u)}}$$

exceed a value of 2.

For more important differences, we must look at the values from the individual laboratories. Laboratory G shows no losses under any circumstances, whereas laboratories F and H agree fairly well, and show loss ratios as high as 3.

Presuming that the chlorinations were conducted accurately, the differences most likely resulted from variations in drying after each wash cycle. Laboratory F used a hand iron at the cotton setting, G used a tumble drier, and H used a commercial laundry press, each in their usual manner.

A more recent study in laboratory G has shown that it was not the tumble drier as such which gave the lower damage figures; similar low damage results were obtained when the fabrics were ironed dry or when they were merely hung in the air to dry. In this study, all five of the standard test fabrics were evaluated, using 0.02% available chlorine and a ballast load of clean fabrics. As shown in the upper half of Table VII, all gave rather low damage results through ten wash cycles. However, when the fabrics were scorched once (30 seconds at 365°F) following the tenth laundry cycle, the resulting damage figures were surprisingly close to those obtained by a single accelerated test using AATCC 92-1958.

The close agreement with AATCC 92-1958 might well be ignored, as it is undoubtedly quite fortuitous. More important are two facts illustrated by the data in Tables III, VI, and VII: 1) the amount of damage will vary with the amount of heat applied to the chlorinated fabric, and 2) the amount of heat applied in so-called "normal" end use will vary greatly with the equipment (and perhaps with the operator).

As a further brief follow-up on the equipment variable, a study of hand irons was made in two laboratories. Four irons, allowed to come to equilibrium at the "cotton" setting, attained temperatures of 350°F, 407°F, 424°F, and 492°F. Thus, not only are ironing times and procedures likely to be variable, but the irons themselves vary more than might have been thought. The iron that reached 492°F is reported to have damaged fabrics, from time to time, when used to press resin-treated fabrics after laundering.

With regard to commercial laundering, the situation is fully as complex. On rare occasions, the high-standard fabric has shown strength losses as high as 61% after 20 wash cycles, compared with only 18% for an untreated control. But more often, both treated and untreated will show equivalent losses, usually in the range of 20%. We have not learned why this is so; conditions of hot pressing may be partly responsible, but other circumstances may be involved as well.

OTHER PROBLEMS——Several other problems face us at present. First, further attention has been directed to yarn-dyed fabrics, which sometimes damage in the AATCC Test 92-1958 even though not resin treated. This may be due in some cases to fabric impurities (such fabrics are not kier-boiled) and in a few cases to the dyestuff itself. Incidentally, one dyestuff was found to cause damage during wet chlorination, without further damage on pressing. This entire matter merits further study.

Second, preliminary study has been given to modifications of the test to facilitate the handling of a large number of samples at the same time: for example, rinsing them all together in buffered tap water in a tumble washer. Such a modification need not be incorporated into the present test, but could be mentioned as a permissible variation in the interest of productivity, with perhaps some loss in precision. In this connection, we should bear in mind that our first objective is maximum reproducibility, rather than maximum convenience; AATCC 92-1958 is to be regarded as a referee test. However, we recognize that production departments are forced to take liberties in order to save time, and we should be in a position to suggest acceptable variations.

Third, we must soon consider the status of the present AATCC Tentative Test 92-1958. Reproducibility is by no means perfect, but has improved to a point where a group of laboratories who have taken time to become familiar with the procedure will agree, on the average, to within plus or minus ten percent. The test conditions are severe, and will correlate only with the more severe conditions of end use, so that some persons believe that the test is too drastic. Yet most failures, in any sort of end use, occur under the more extreme conditions. The question is whether our conditions are too severe, or whether they merely provide a desirable margin of safety to allow for the extreme conditions which are occasionally found in "normal" end use.

It seems logical that in the near future we should take one of three steps.

1) Make further changes in the test procedure to obtain even greater reproducibility. This is probably not feasible.
2) Make the test conditions more mild. This is probably not desirable.
3) Consider the adoption of AATCC Tentative Test 92-1958 as a Standard Test.

II. Report of the Color Committee

H R DAVIDSON
Chairman, Committee RA36
Color

ALTHOUGH many factors influence a customer's choice in purchasing textiles, color is at least as important as any other. It is for this reason that the Color Committee has been set up within the AATCC in order to coordinate and promote activities in this field. The problems with which this committee is concerned at present are related more to the production of a color than to the aesthetics of color choice. We assume, in other words, that the color chosen for production is the best one, and take up the problem of turning out the desired number of pounds or yards of the required material. Within the field of our activity, then, it will be apparent that there are three major problems. One is establishing a dyestuff formula to match the chosen color. The dyestuff chemist must first establish which class of dyestuffs will be suitable, and then the colorist must select the appropriate ones from this class and determine the quantities necessary to produce a match. A second problem arises in controlling the color during production, and a third problem is concerned with the quality, or acceptability, of the finished color. It has been found that color measurement is of considerable help in solving these problems, and is being employed on an increasingly wide scale. Thus, the activities of the Color Committee tend to become concerned primarly with color measurements and their applications to the problems of color formulation, control, and specification.

The specific problems with which the Color Committee will be working can best be illustrated by an example. Assume that a customer has submitted a color to a piece dye mill, and has ordered a large number of yards dyed to match his standard. Assuming that the problem is to be solved with instrumentation of some sort, the first question that arises is: What instruments are suitable? Having measured the standard, we want to know what dyestuffs are required to make a match which is good under all lighting conditions. Since this

choice can be made by referring to the spectrophotometric curves of the dyestuffs, the Committee would like to promote the general publication of these curves. Next, how much of each of the selected dyestuffs is required? What methods are available for the determination? Having solved the formulation problems, the mill now starts production. The first production sample shows that the match is not quite close enough, how shall it be corrected? Again, we want to know what instruments are suitable for measurement and what methods are available for computing the correction to the dye bath. Finally, we want to know whether the finished piece is a sufficiently close color match to the standard for acceptance by the customer. Again, we need to know what instruments are suitable for measurement, what methods are to be recommended for calculation of the color difference between production and the standard, and, finally, what tolerance can reasonably be set.

The Color Committee cannot, of course, hope to answer all of these problems in a short time, but we do hope to provide tentative answers to a number of them within the next year.

Reports presented by Graham M Richardson, chairman, Committee RA61 (Wash and Wear) and by Victor S Salvin, chairman, Committee RA33 (Colorfastness of Textiles to Atmospheric Contaminants) will be published in the December 25 issue.

Membership Applications

November 9-22, 1961

NEW ENGLAND REGION

Rhode Island Section

Transfer to Senior

Gerald R Escolas—Tech sales, Carbic-Hoechst Corp, W Warwick, RI. Sponsors: C F Stokes, B Frankfurt.

Michael Shepard—President, Eastern Color & Chem Co, Providence, RI. Sponsors: G P Paine, G J Mandikos.

CENTRAL ATLANTIC REGION

Hudson-Mohawk Section

Senior

Gerard Hollander—President, Lamatronics Industries Inc, Amsterdam, NY. Sponsors: A J Rooney, D O Hamer Jr.

Kenneth P Smith—Production chemist, General Aniline & Film Corp, Rensselaer, NY. Sponsors: W G Drautz, G P Paine.

Metropolitan Section

Senior

William B Hankinson—Asst supt & supt finishing, United Merchants & Mfg Inc, New York, NY. Sponsors: E M Cobe, K Rassoulian.

Transfer to Senior

James L Gleim—Salesman, American Cyanamid Co, New York, NY. Sponsors: G A Jonic, E I Stearns.

Transfer to Junior

Sidney L Barkoff—Verona Pharma Chem Corp, Union, NJ. Sponsors: F E Hilger, M Frankfurt.

SOUTHERN REGION

Piedmont Section

Senior

John D McCluer—Dir of research, H K Porter Co, Thermoid Div, Charlotte Works, Charlotte, NC. Sponsors: J C Boesch, R O Simpson.

Transfer to Senior

Daniel D Ward—Dev chemist, Celanese Fibers Co, Charlotte, NC. Sponsors: J S Warner, G C Ward.

South Central Section

Transfer to Senior

Thomas F Broadhurst Jr—Technical advisor, W F Fancourt Co, Greensboro, NC. Sponsors: J L Fancourt, J T Lindley.

Washington Section

Senior

Bernard F Bulger—Head dyer, W J Dickey & Sons Inc, Baltimore County, Md. Sponsors: T J Horan, P W Reeves.

Transfer to Senior

John P McNally—Chem engr, National Cotton Council of America, Washington, DC. Sponsors: N F Getchell, H Tovey.

WESTERN REGION

Mid-West Section

Associate

Stuart A Dalheim—Research engr, central res dept, The Mead Corp, Chillicothe, O.

Pacific Southwest Section

Senior

Bill M Childers—Supt of dyeing, Jenkins-Wright Co, Los Angeles, Calif. Sponsors: H K Vogel, W E Kramer.

STUDENT CHAPTERS

Lowell Technological Institute

Student

Priyavadan P Shah—Student, Lowell Technological Inst, Lowell, Mass. Sponsor: J H Skinkle.

New Bedford Institute of Technology

Student

Allen A Bozek—Student, New Bedford Inst of Technology, New Bedford, Mass. Sponsor: F Tripp.

North Carolina State College

Student

Yalman I Balta, Albert H Y Chang, Harry O DeLoach, Uler Gokcen, Javy R Gwaltney Jr, Jerry L Hutchens, Jagmohan Jhaveri, William C Lynn, Phillip T Norden, Necati Ozgur, Hugh A Padgett, Kaye F Perryman, David R Reynolds, Edward S Roberts, Darryl L Shaver, Jerry E Snider, Sukru T Tarim, Tom G Thornburg Jr, John R Wiggins, Joel L Younts—Students, North Carolina State College, Raleigh, NC. Sponsor: H A Rutherford.

Philadelphia College of Textiles and Science

Student

Theodore G Cohen, Lowell L Diamond, Carlos Eichenwald, Kenton W Getty, John D Gile, Peter J Hennessey, Wayne L Kargher, Robert C Kerschner, Paul H Kerstetter, Man-Kon Loh, Dale E Ohl, Rajendra R Patel, Robert W Schumm, Robert H Sturm, Shamseddin S Tehrani, Kenneth B Takvorian—Students, Philadelphia College of Textiles & Science, Philadelphia, Pa. Sponsor: W Hughes.

AT LARGE

Student

Pierre R LaRose—Student, Textile Institute of St Hyacinthe, St Hyacinthe, Canada.

Morrill Elected to Second Term

(*concluded from page 98*)

Section from 1947 to 1949 and then as Councilor. He has been a member of AATCC since 1939.

Mr Jones was graduated from The Lewis Institute in 1935, after which he went with General Dyestuff Co. In 1937, he joined Phoenix Dye Works.

* * *

Joe D Mosheim is manager of Crystal Springs Bleachery Co, Chickamauga, Ga, a member of ECR, TCR, and has served on the Corporate Membership Committee, Individual Membership Committee, and Intersectional Contest Paper Committee. He has held offices in the South Central Section and has served as National Councilor several times.

Mr Mosheim was graduated from North Carolina State College, after which he was connected with Sandoz and American Finishing Co. Since that time he has been with Crystal Springs Bleachery.

* * *

J Edward Lynn is a consultant to the textile and allied industries, specializing in finishing problems, market surveys and colloid chemistry.

Dr Lynn is the founder of both the Western New England and Niagara Frontier Sections of AATCC. He has served as chairman and National Councilor (two 3-year terms) for the WNE Section and National Councilor for the NF Section. He has been chairman of the Technical Committee for the 1957 Boston AATCC National Convention.

Dr Lynn received his bachelor and doctoral degrees in chemical engineering from the Massachusetts Institute of Technology specializing in colloid chemistry with minor in organic chemistry. He taught colloid chemistry at the Institute of Paper Chemistry, was head of the textile chemicals and resins development laboratory at American Cyanamid Company for 13 years, director of basic research at National Gypsum Co, and a textile consultant since 1955.

He is currently vice chairman of the New York Section of AATT and a member of the Fiber Society. He has contributed chapters on dyeing, printing, and finishing to the "Encyclopedia of Man-Made Textiles," on fiber and fabric preparation chemicals in "Textile Chemicals and Auxiliaries" and is editor of "Advances in Textile Processing." Dr Lynn is the author of many technical papers and has been granted several textile processing and other chemical patents.

Employment Register

This column is open for two insertions per year, per member, without charge. Blanks may be obtained from, and filed with, the secretary of the Association, Post Office Box 28, Lowell, Mass. It is understood that these will be open to inspection by prospective employers who can obtain further information from the secretary.

61-21
Education: Experience
Executive—managerial ability in area of R&D in textiles. Broad background in fabrication, dyeing, finishing and quality control. Strong in natural fibers plus good experience in synthetic field. Resume available.
Location: Will relocate
Age: 50, married

61-22
Education: MS, textile chemistry
Position desired: research or technical service
Location: Anywhere
Age: 24, single, references

61-23
Education: MS, textile chemistry
Position desired: Textile research chemist
Location: Anywhere
Age: 25, single, references

61-24
Education: High school
Position desired: Supt dyeing or technical sales
Location: Northeast
Age: 41, married, references

61-25
Education: BS, textile chemistry
Position desired: Application, development, production
Age: 35, married, references

61-26
Education: BA degree plus special courses in advanced textile design
Position desired: In charge of quality control, textile technological work, in charge of dyeing and finishing, fiber evaluation work
Location: No particular preference
Age: 55, married, references on request

61-27
Education: Bradford Durfee College of Technology
Position desired: Technical sales, chemicals for textile industry
Location: Eastern United States
Age: 42, married, references

61-28
Education: Univ of Mexico, BS, chemistry
Position desired: Tech director for dyeing and finishing plant; chemical engineer or consultant for chemical industry
Location: Anywhere
Age: 43, married, references

61-29
Education: BS, chemistry plus one year graduate study in chemistry
Location: Northeast
Position desired: Manager product development (sales development)
Age: 42, married, references on request

61-30
Education: Illinois Inst of Tech, Chicago. (No degree, but equivalent)
Position desired: Technical sales (sales manager)
Location: Philadelphia base; willing to move south in few years
Age: 46; married; three dependents; references

AATCC Calendar

COUNCIL: NATIONAL COMMITTEES
Jan 24-26 (Hotel Commodore, New York, NY); Jan 24-25 (administrative and research committees, ECR, TCR, Executive Committee); Jan 26 (Council—10 am)
Apr 12-13 (Francis Marion Hotel, Charleston, SC); Council, administrative and research committees

NATIONAL CONVENTIONS
Nov 14-17, 1962 (Atlanta Biltmore Hotel, Atlanta, Ga); Oct 30-Nov 2, 1963 (Boston, Mass); Sept 24-26, 1964 (Hotel Statler, New York, NY); Oct 14-16, 1965 (Conrad Hilton Hotel, Chicago, Ill); 1966 (Chalfonte-Haddon Hall, Atlantic City, NJ)

HUDSON-MOHAWK SECTION
Jan 12 (Barney's Restaurant, Rt 30, Amsterdam, NY———Topic: "Historical Aspects of Dyeing and Finishing", Sidney M Edelstein, Dexter Chemical Corip); Mar 9 (Chelsea House, Tribes Hill, NY———Topic: "New Advances in Machinery for Pressure Dyeing of Synthetic Fabrics", Fred Fortess, Celanese Fibers Co); May 25 (Jack's Restaurant, Albany, NY———Topic: "The Application of Scotchgard Oil & Water Repellent to Textile Materials", Edwin S Grajeck, Minnesota Mining & Mfg Co); June 22 (14th Annual Outing & Golf Tournament, Antler's Country Club, Amsterdam, NY)

METROPOLITAN SECTION
Jan 19 (New York, NY—"Costs", D M Lewis, Colonial Piece Dye Works); Feb 16 (New York, NY); April 13 (Ladies Night—Margaret Ingersol, *Vogue*); May 18 (Kohler's Swiss Chalet, Rochelle Park, NJ—"Nonwovens—Dyeing and Finishing", panel); June (Outing)

NORTHERN NEW ENGLAND SECTION
Jan 19 (Woodlawn Country Club, Newton, Mass)

NORTHERN PIEDMONT SECTION
Jan 12 (Starmount Forest Country Club, Greensboro, NC)

PALMETTO SECTION
Jan 20-21 (Poinsett Hotel, Greenville, SC); April 14-15, 1962 (Francis Marion Hotel, Charleston, SC)

PIEDMONT SECTION
Jan 27 (Hotel Charlotte, Charlotte, NC); Apr 7 (Hotel Barringer, Charlotte, NC); June 8-9 (1962 Outing—Mayview Manor, Blowing Rock, NC); Sept 29, 1962 (Hotel Barringer, Charlotte, NC)

SOUTH CENTRAL SECTION
Jan 12 (Wimberly Inn—Ladies Night); Apr 7 (Nashville, Tenn); July 20-21 (Annual Summer Outing—Lakeshore Lodge, Chickamauga Lake, Chattanooga, Tenn); Sept 15 (Knoxville, Tenn)

RHODE ISLAND SECTION MEETING • OCTOBER 27, 1961 • LINDY'S BALI ROOM, CRANSTON, RI

(Photos by Everett)

John J Roarke (left), chairman, Rhode Island Section, chats with Donald Gagliardi, speaker

Seated, l to r: George Houth, Kenneth J Broden, Earl S Johnson, Francis Cooney
Standing, l to r: Erling B Owren, Ernest Nathan, Gordon Andrew, William Turner

HEAD TABLE (l to r): John J Roarke, Donald Gagliardi, Herman Goldstein, William Crawford, Terry Trimmer

L to r: Lionel King, Donald Campbell, Melva Davis, Arthur Cripps

HEAD TABLE l to r): William S Barnes, Harold B Sturtevant, Myron D Reeser, W George Parks, John J Roarke

NOMINATIONS FOR THE OLNEY MEDAL—1962

"FOR Achievement in Textile Chemistry"—This incription on the Olney Medal signifies oustanding achievement in textile chemistry, including the development of chemical agents or chemical processes used in the manufacture of textiles, or methods for their evaluation, or for outstanding accomplishments in polymer chemistry which have a profound effect on the textile industry.

The Olney Medal is given to encourage and afford public recognition of such achievements and contributions. It is the Association's highest scientific award and is presented at the annual Convention.

The Medal was established in 1944 and endowed by the Howes Publishing Company as a testimonial to Dr Louis Atwell Olney, founder of AATCC, in recognition of his lifetime of devotion and multitudinous contributious to the field of textile chemistry.

The Medalist is selected by the unanimous vote of a committee of Senior members of AATCC comprised of the president of the Association, a member of faculty of an educational institution awarding degrees in chemistry, a member of a concern manufacturing chemical products used in textile wet-processing, an employee of a concern manufacturing textiles and a member-at-large who may be any qualified individual. The executive secertary is secretary of the committee without vote.

The Medal is given annually or at such longer intervals as the committee may elect. The nominees' qualifications alone are evaluated by the committee, not the number of nominations for a particular candidate. Organized campaigns promoting the candidacy of any individual are considered unethical.

Any member of the Association in the senior classification may nominate a candidate who is an American citizen but not necessarily a member of AATCC. Nominations from the previous year are not carried over to the next year but may be re-submitted. Material, supporting nominations, will be returned on request. Information concerning the nominee should set forth in detail all facts which qualify the candidate for consideration with particular reference to published works, professional qualifications and scientific contributions.

Nominations must be made prior to April first by letter addressed to the Olney Medal Committee, care of the executive secretary, AATCC National Headquarters, Box 28, Lowell, Mass.

NOMINATIONS FOR THE HAROLD C CHAPIN AWARD—1962

THIS award is presented annually at the Association's Annual Convention to a Senior Member of at least twenty years continuous membership in AATCC who has contributed outstanding service in enabling the Association to attain the objects for which it was founded. The award is in the form of a suitably worded, framed, illustrated scroll.

Established in 1958, the first recipient was Harold C Chapin, for whom the service award was named, who served as secretary of AATCC during a quarter of century. Dr Chapin was cited for his example that inspired the creation of the award, for his outstanding leadership, for dignity and integrity in office, for indefatigable attention to minor detail and major policy, for advancing the Association's objectives, for prestige to the Association, and for bringing national and international prestige to the Association, and for long and devoted service.

The selection of the recipient is by the unanimous choice of a committee consisting of one member from each of the four Regions, appointed for four years by the Councilors of the respective Regions, the president of the Association ex-officio, and the executive secretary as secretary of the committee without vote. The committee rotates annually with the occurrence of one vacancy to be filled, the chairmanship being assumed by the committee member serving his fourth year. No committee member may be reelected for at least one year following completion of his term.

Senior Members of AATCC are invited to furnish full and detailed information of candidates nominated for this award, such as service on AATCC Research and Council Committees, accomplishments and contributions in enabling the Association to attain the objects for which it was founded. Organized campaigns promoting the candidacy of any individual will not be recognized by the committee. Consideration will be given only on factual evidence of the nominee's qualifications.

Nominations may be addressed to the Harold C Chapin Award Committee, c/o the executive secretary, AATCC National Headquarters, Box 28, Lowell, Massachusetts, and should be received prior to April first.

NOTICE TO AUTHORS OF PAPERS

MANUSCRIPTS for the *Proceedings* of the American Association of Textile Chemists and Colorists shall conform to the requirements and standards given in this *Notice*. Before publication, manuscripts for the *Proceedings* shall be approved by the Editor, not only for editorial correctness according to the standards of this *Notice*, but also for content of technical matter. In his work, the Editor may enlist the aid of anonymous reviewers who are selected for expert knowledge in particular fields.

It is presumed that authors in studying the comments of reviewers and of the Editor will remember that all recommendations are made in a kindly, helpful, sympathetic manner to improve the paper in both literary and technical excellence. Although authors should cheerfully consider suggestions, they are expected to defend their position if justified, especially when strictly technical matters are involved with which the authors have an intimate knowledge.

AATCC strives to maintain a high scientific and professional standard for papers. Authors must make every effort to avoid the use of trade names, commercial products or process names wherever such use may be construed as advertising. Wherever possible, scientific nomenclature must be employed eg, *Colour Index* designations for dyestuffs and pigments in place of the trade names. It is recognized that in some instances trade names are necessary to avoid lengthy description. Certain trade names have been so widely used as to become generic and these normally are permissable. Further, some technical papers may involve the presentation of a new product or process wherein trade name reference is obligatory.

Giving due consideration to such valid exceptions, it is incumbent upon the author to maintain the proper scientific attitude, avoiding any expressions or devices aimed at promoting a particular product or process.

Questionable papers are to be referred to the chairman of the Publications Committee, who will submit them to an editorial board which would be appointed as needed. The Board would report to the Publications Committee, which would have the final voice in accepting or rejectin a paper.

MANUSCRIPTS — Manuscripts shall be typewritten double-spaced with approximately one-inch margins on 8.5x11-inch white paper. In addition to the *original*, at least one carbon copy is required. Pages are to be numbered consecutively with Arabic numerals, and each page after the first shall carry the authorship at the very top. Tables and figures shall also be numbered consecutively, the tables with headings containing Roman numerals as TABLE I, TABLE II, etc, and the figures with Arabic numerals as Figure 1, Figure 2, etc, appearing *below* the figures. The names of the authors and their laboratories or business connections should appear below the title of the paper.

LITERARY STYLE AND FORM OF PRESENTATION—In the writing of papers, authors are requested to observe a trenchant, simple style of writing directed to textile chemists and colorists with at least an elementary knowledge of chemistry, physics, mathematics, engineering, textile processes and textile machinery.

In the organization of the material, there should be one or more introductory paragraphs setting forth the occasion, significance and main objectives of the paper and of the method of attack. This should be followed by the body of the presentation, either with discussions interspersed throughout this portion or with a collected section marked "DISCUSSION" after the main body of the paper. Finally, there may be a brief section at the end entitled "SUMMARY" or "CONCLUSIONS."

Center and side headings make for easier reading. Center headings should be employed sparingly and generally will include only very important section headings, such as "INTRODUCTION," "EXPERIMENTAL," "DISCUSSION," "CONCLUSIONS," "SUMMARY," and "REFERENCES." Side headings (see sixth paragraph of this *Notice* for an example) shall be indented and run into the text to which they apply, and shall be separated from the paragraph by a dash. The publisher will print center headings in bold-face capitals and side headings in capitals.

LITERATURE REFERENCES AND FOOTNOTES—References to the literature and all footnotes (except those in tables) shall be numbered consecutively with underlined Arabic numerals in parentheses at the proper place in the text. Where a reference or footnote is to be used again, the original number is simply repeated; this obviates the necessity of repeating the footnote or reference at the bottom of the page. References to the literature shall conform to the universal usages followed by *Chemical Abstracts*, which include underlining of journal names to indicate italicization in printing. The abbreviated codes for many journal names appear on page 183 of the 1959 *Technical Manual*.

The spelling and rules of punctuation followed in manuscripts shall be those found in the "Merriam-Webster New International Dictionary"; abbreviations and chemical formulas shall conform to *Chemical Abstracts*.

FIGURE AND GRAPHS—Figures and graphs should be black line drawings on white drawing paper. Photographic prints are acceptable, preferably glossy prints on double-weight paper. Duplicates should be available for dispatch to reviewers. In graphs the frame and actual curves should be inked more heavily than the coordinate lines, and these latter should not be too close together. Various styles of broken lines are sometimes desirable to distinguish curves. Experimental points should be given with small plane figures, such as circles, squares, diamonds, or triangles. Numbers and legends on co-ordinate axes are to be lettered in the graph by the author. Number and titles of figures should be placed below the diagram or on the edge of the back. Each piece of illustration copy should bear on the margin or on the edge of the back the name of the author and the title of the paper.

SYNOPSIS—A separately written synopsis of not over 200 words containing the gist of the subject matter must accompany every manuscript.

GALLEY PROOFS—Galley proofs will be sent to the author by the publisher for correction before publication.

AUTHOR'S COPIES—Fifty copies of papers published in the *Proceedings* will be furnished without charge by the publisher if requested when galley proofs are returned. These copies are printed on one side of the sheet only and then stapled together. A schedule of prices of reprints in the usual form accompanies the galley proofs.

OWNERSHIP OF COPYRIGHTS AND PATENTS—All papers presented at general meetings of the Association or at meetings of any of its local sections and all communications shall become the property of the Association. Such papers are not to be published elsewhere until they have appeared in the *Proceedings* of the Association. Papers published in the *Proceedings* are copyrighted by the Association. Any patentable disclosures shall of course remain the property of the author or authors.

TRADEMARKS—As the AATCC wishes to co-operate in the protection of trademarks, it is requested that, in the body of the article, trademarks be written with an initial capital letter.

IMPORTANT NOTICE

To all manufacturers of Dyes, Pigments, and Resin-bonded Pigment Colors:

To all manufacturers of Textile Chemical Specialties:

The Sections on Dyes and Pigments, Resin-bonded Pigment Colors, and Textile Chemical Specialties in the AATCC *Technical Manual* will be completely revised and brought up to date in the 1962 edition.

Directions for the submission of information and the necessary forms have been mailed to companies whose products were listed in the 1961 edition. If you have not received this material or wish to have your products included in 1962 please notify the undersigned. The material will be sent to you promptly.

To have your products included in the 1962 *Technical Manual* the information we are requesting must be received by the undersigned before the dates given below.

DEADLINES

For Textile Chemical Specialties	January 10, 1962
For Dyes and Pigments	January 20, 1962
For Resin-bonded Pigment Colors	January 30, 1962

William D Appel, Editor, *Technical Manual*
9101 Jones Mill Road, Chevy Chase 15, Maryland

NEW Polyester COLORS
BY FRANCOLOR

THE GENUINE
French Fashion
DYES

ESTERORHILE LIGHTFAST PINK R3L
Recommended by a leading polyester fiber manufacturer for thermal fixation and pressure dyeing of polyester fabrics and blends. Also recommended: our whole range of ESTEROPHILE sublimation, light and wash-fast colors:

BLUE BJLL	ORANGE 3RLL
YELLOW 2RL	RED RBL
YELLOW 3RLL	BLACK J

FRANCOLOR, Inc.
WOONSOCKET, RHODE ISLAND
POplar 2-6565

U. S. DIVISION OF
Cie Française des Matières Colorantes
9, AVENUE GEORGE V — PARIS 8e

MANUFACTURERS OF OVER 15,000 TONS ANNUALLY OF DYES OF ALL TYPES FROM OUR OWN TOP-QUALITY INTERMEDIATES
ASK FOR SAMPLES OF — Solanthrene, Heliane, Solasol, Diazol, Diazamine, Naphtazol, Neutrogene, Sulfanosol and Acid Chrome, Inochrome, Neutrichrome, Amichrome

COLOUR INDEX HUE INDICATION CHARTS AVAILABLE FROM NATIONAL HEADQUARTERS

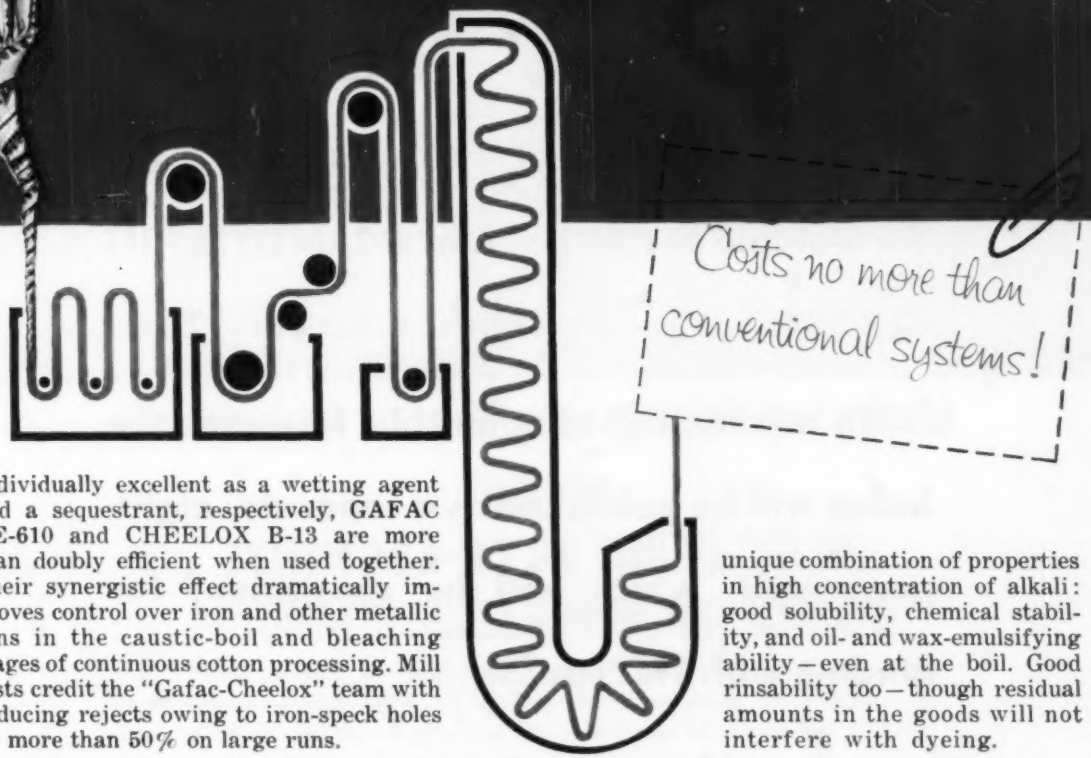
Copies of the *Colour Index* Hue Indication Chart are now available from AATCC National Headquarters, P O Box 28, Lowell, Mass, at a price of $1.50 per copy.

The most important property of any coloring matter is its hue on a given substrate. The coloring matters in each usage section of Part I of the *Colour Index* have therefore been subdivided into a regular series of hue groups for which the conventional descriptions yellow, orange, red, violet, blue, green, brown and black (with the addition of white in the section devoted to pigments) have been adopted. This classification has been incorporated in the system of serial usage numbers in Part I. Each entry carries a reference number, eg, CI Acid Yellow 1 or CI Vat Blue 20; these numbers are consecutive within each hue group and will be extended as supplementary volumes appear. The commercial name under which a coloring matter is marketed does not necessarily give a precise indication of its hue. This is well illustrated by the wide divergence which frequently occurs in the commercial names used by different manufacturers for the same coloring matter. To overcome these inconsistencies and to introduce some measure of standardization a *Hue Indication Chart* was devised. This chart, in the shape of a hexagon, gives prominence to the six major divisions of alternate primary and secondary hues and at the same time provides continuity. Each side of the hexagon is divided into three parts, eg, the yellows are divided into greenish yellow, yellow and reddish yellow. The tertiary hues are placed inside the area of the primary and secondary hues and in association with the parent hues. A neutral grey occupies the center of the hexagon with four radial grey patterns forming a link with the other tertiary hues. Special provision has been made for pinks which are placed adjacent to the reds but outside the hexagon. Cooperating dye and pigment manufacturers were asked to describe the hue of each of their products in accordance with this hue Indication Chart, which is contained in a pocket in Volume 4. In the Chart there is an outline diagram which records the formal descriptions associated with the individual chromatic areas. Each chromatic area is designated by an outline which functions as a line of demarcation between the diffcrent areas. Many of the chromatic areas are qualified by the terms bright and dull.

This Chart enables a reader to translate into visual terms the verbal descriptions of hue given in the *Colour Index*.

GAFAC® RE-610 wetting agent with CHEELOX® B-13 sequestrant

can cut rejects 50% or more in continuous bleaching of cotton goods



Individually excellent as a wetting agent and a sequestrant, respectively, GAFAC RE-610 and CHEELOX B-13 are more than doubly efficient when used together. Their synergistic effect dramatically improves control over iron and other metallic ions in the caustic-boil and bleaching stages of continuous cotton processing. Mill tests credit the "Gafac-Cheelox" team with reducing rejects owing to iron-speck holes by more than 50% on large runs.

GAFAC RE-610 phosphate ester is a new 100%-active anionic surfactant offering a unique combination of properties in high concentration of alkali: good solubility, chemical stability, and oil- and wax-emulsifying ability—even at the boil. Good rinsability too—though residual amounts in the goods will not interfere with dyeing.

GAFAC RE-610 and other GAFAC surfactants are effective at various other stages in the processing of cellulosic and synthetic-fiber yarns, piece goods, and hosiery. Write for data sheet TA-63 entitled "GAFAC Surfactants in Textile Processing."

ANTARA gaf

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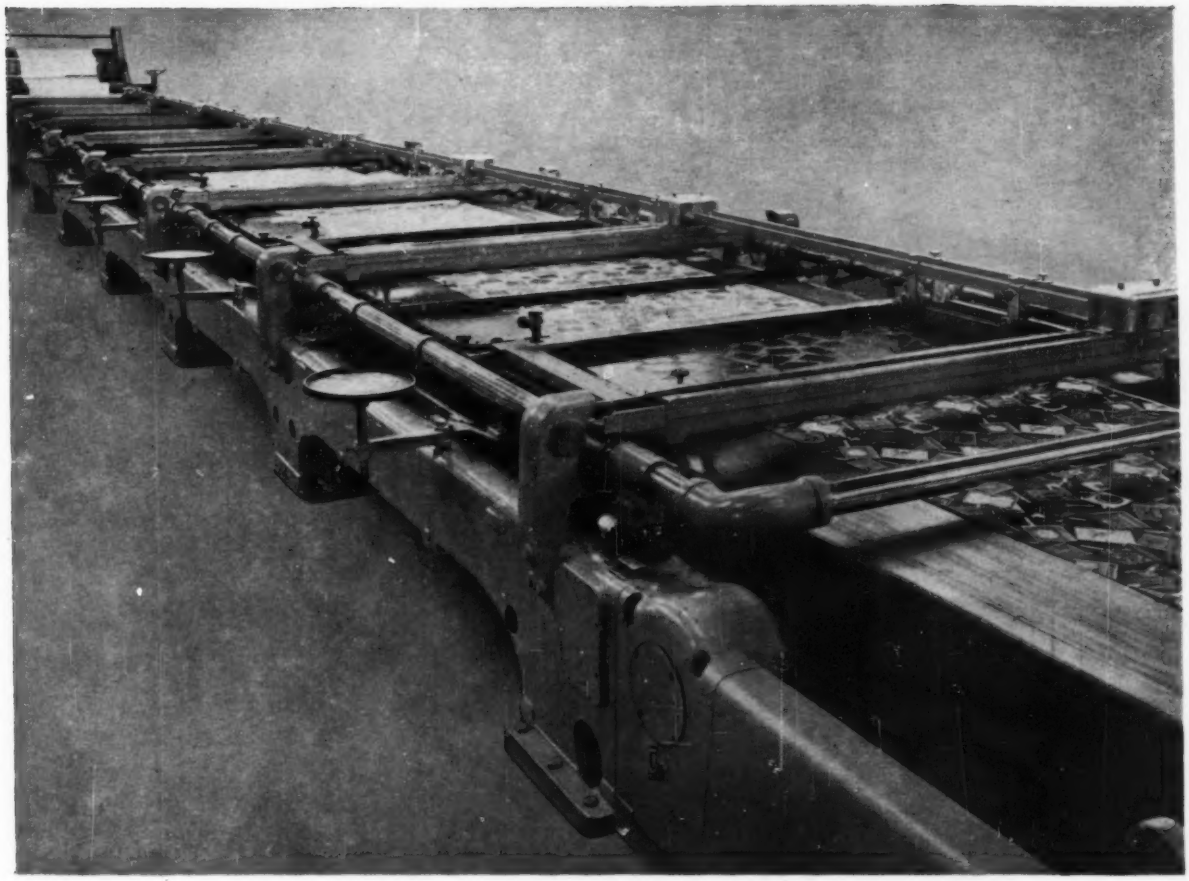
SPECIAL NOTICE

The Annual Index by Subject and Author for Volume 50 (1961) of AMERICAN DYESTUFF REPORTER will be published January 22.

To accommodate numerous requests, the index will be published as a separate, eight-page unit, which will be convenient for binding with 1961 issues.



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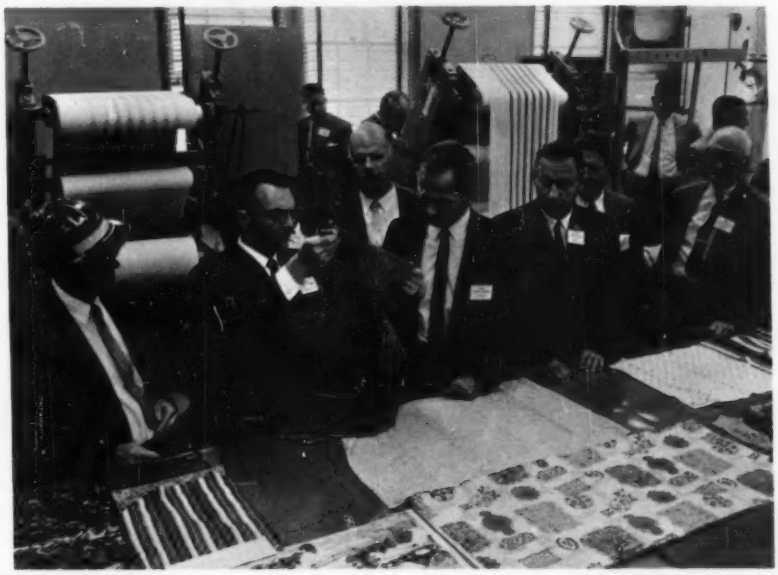
250 TEXTILE EXPERTS ATTEND "OPEN HOUSE" AT MODERNIZED DU PONT TECHNICAL LAB

DEEPWATER POINT, N. J.—After two years and 1.5 million dollars of renovation effort, the Technical Laboratory of Du Pont's Dyes and Chemicals Division was recently thrown open to a group of 250 textile industry representatives attending a two-day technical conference (story next page) at the company's headquarters in nearby Wilmington, Delaware.

The remodeled, forty-one-year-old technical sales service and development laboratory is a new laboratory on the same site. All that remains of the old building are the walls, the interior having been rebuilt entirely and re-equipped. The renovation provides the most modern laboratory facilities for application research on dyes.

The decision to renovate the existing three-story building, located within the company's Chambers Works here, was made because of the desirability of keeping the laboratory physically within the plant. Here it is in close contact with the nearby research facilities of the Jackson Laboratory and the technical and engineering services of the plant's production division.

The renovation was carried out step by step to minimize interruption of work on current development and sales service projects. This was possible because the laboratory is divided into separate, self-contained units. First to be completed was a new textile dyes laboratory. This was followed by renovation of the leather laboratory, the pigments and miscellaneous dyes laboratory, the laboratory specializing in textile and non-textile chemicals and finishing agents, quality control laboratory, and finally the realignment of administrative offices together with a modern conference room.

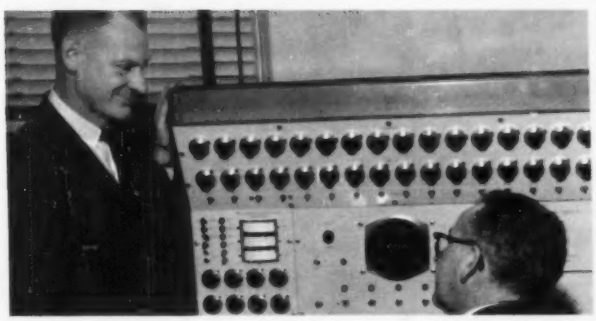


Representatives of the textile industry inspect fabric samples at Du Pont's newly equipped Technical Laboratory, now completely rebuilt after 41 years of service.

In addition to the remodeling and rearranging of space for more efficient use, the newest and most advanced laboratory equipment has been installed in each section. Among the more unusual pieces are a tristimulus differential colorimeter and a colorant mixture computer, both used in the scientific measurement of colors. Another new piece of equipment is a xenon textile dye tester for accelerated light fading tests, to supplement the standard "Fade-Ometer." All installations have been designed to insure maximum safety in working conditions, a policy which has enabled laboratory personnel to work more than nine million man-hours over a period of 18 years without a time-losing injury.

Continued

news from Du Pont



NEW DIRECTOR MEETS NEW "COMIC"

The Comic (verbal shorthand for Colorant Mixture Computer) is an electronic whiz that tells you what dyes to mix to match a desired shade. Here it's being given a run-through for Robert F. Stevens, newly appointed director of Du Pont's Technical Laboratory, by Joe Neary of the instrument group. The Comic, already widely used by textile mills, is being evaluated by Du Pont for possible use in improving service to customers by speeding the shade matching process.

TECHNICAL CONFERENCE REVEALS "WHAT'S NEW" IN SYNTHETIC FIBER DYEING AND FINISHING

This Du Pont quartet on the auditorium stage was only one of many that addressed textile experts at the Technical Conference. In photo, left to right: C. Z. Keresztes, J. S. Thackrah, H. P. Landerl, B. F. Faris. "Dyeing of 'Orlon'®" was subject of panel.

Nearly 250 representatives and editors from the textile industry recently attended a two-day technical conference as the guests of Du Pont in Wilmington. This was the fourth meeting of its kind during the last 10 years, all sponsored by the Du Pont Organic Chemicals and Textile Fibers Departments. They serve to bring customers up to date on the newest developments from Du Pont laboratories in the area of synthetic fiber dyeing and finishing.

Charles H. Rutledge, Textile Fibers, delivered opening remarks, followed by "Why New Fibers?" by Richard W. Trapnell, director of Textile Fibers Products Division; and "Color Is the Key," by William A. Bours, director of sales of Organic Chemicals Dyes and Chemicals Division.

Other topics: "Trends in Marketing of 'Lycra'® Spandex Fiber," by D. M. Colyer; "'Dacron'® of the Future," by R. J. Thomas; and "Dyeing Du Pont 501 Nylon," by L. Aquadro.

Field trips involved firsthand inspections of the Textile Research Laboratory and the newly remodeled Dyes and Chemicals Technical Laboratory.

news from Du Pont

Continued

Assistance in design of new equipment has been provided by Du Pont's Engineering Research Laboratory. Technical Laboratory personnel are also able to make use of advanced and specialized equipment available at the Chambers Works, as well as the technical services of other Du Pont groups engaged in related activities, such as the Textile Research Laboratory and Finishes Division.

The Technical Laboratory has a staff of approximately 220, including about 80 who are technical experts in specialized fields of dyes and chemicals applications. Out of their work have come a number of new and improved processes, including the Pad-Steam continuous dyeing process, "Unifog" spray, "Thermosol," and Sponge Core dyeing processes.

Besides research and sales service activities involving work on customers' problems, the laboratory maintains quality control over the plant's dyes and chemicals production, produces all the division's technical literature, and serves as a training center for sales and technical personnel of both the Dyes and Chemicals Division and its customers. Laboratory representatives in an average year also make about 700 trade calls and demonstrations in customer plants.

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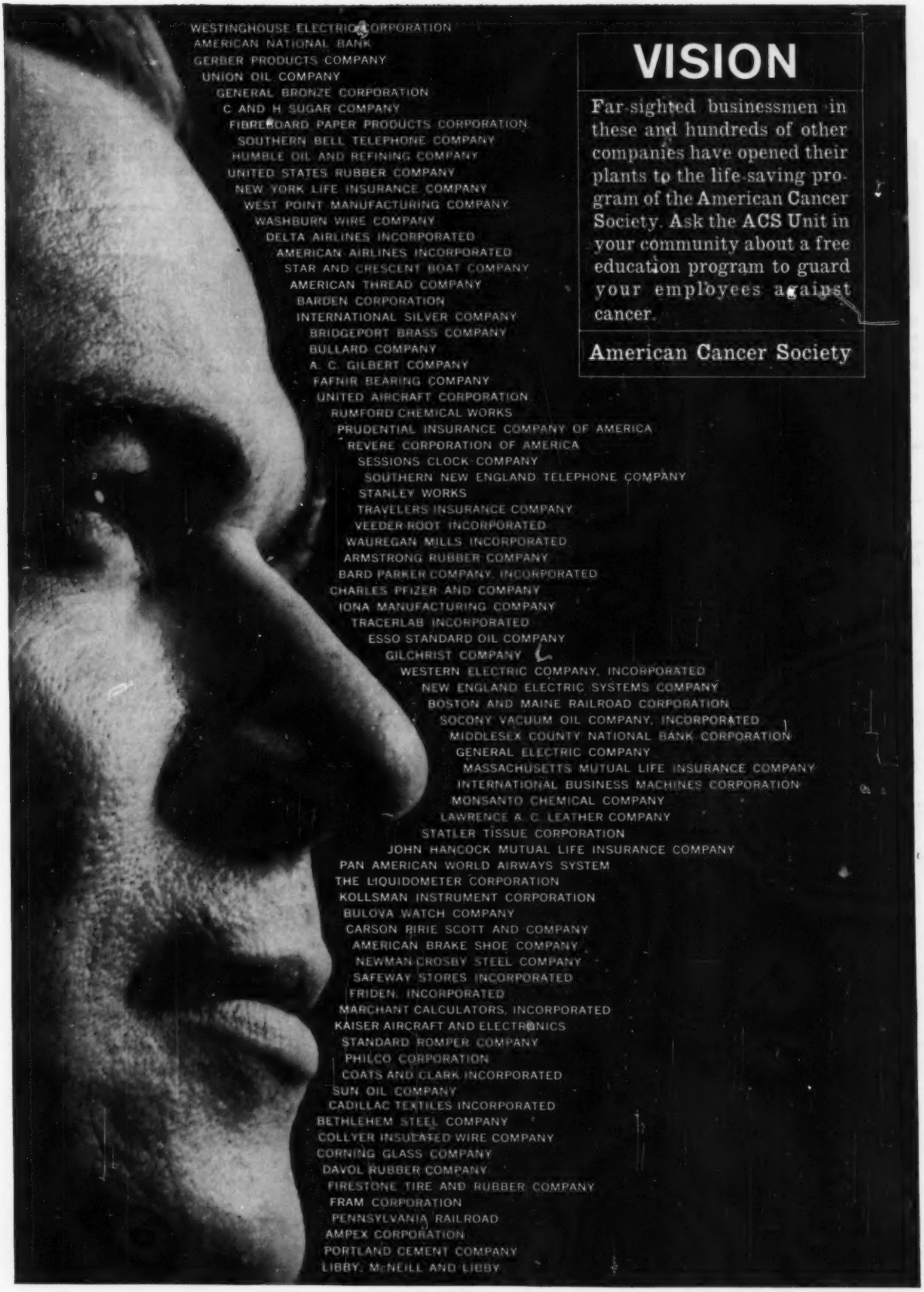
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American Cancer Society

ADR News Report:

General News of the Industry
Personalities in the News
New Products, Developments, Processes

PRESENTATION made to Bradford Dyeing Association on its 50th Anniversary—L to r: Angelo Terranova, Frank Abosso, and Samuel Azzinaro, union officials; U S Senator John O Pastore of Rhode Island; Ernest J Chornyei, president of BDA; Rhode Island Governor John A Notte Jr; Robert O'Brien, sales mgr of BDA's New York office; William Crookshank, general plant mgr, BDA.

FUTURE PAPERS

Following is a list of specially contributed papers which will appear in future issues of *American Dyestuff Reporter:*

"Use of Modern Home Laundry Equipment. II. Cleaning and Wrinkling Effects of Low-temperature Wash Solutions on Naturally Soiled Blouses"———Nada D Poole, Enid S Ross, and R Katherine Taube, Clothing and Housing Research Div, ARS, USDA

"Change in Cloth during Washing with Water and Anionic Detergent"———Virginia C Ester, Norma Hollen, and Rachel Edgar, Iowa State Univ

"The Effect of the Unsaturated Group on the Weathering of Chemically Modified Cottons"———Ricardo H Wade, Carl Hamalainen and Albert S Cooper Jr, Southern Regional Research Laboratory

"The Relationship between the Dyeing Conditions and the Practical Saturation Values of Disperse Dyes on Polyester Fibers"——— J Carbonell, Sandoz Ltd

"Control of Formaldehyde Release from Fabric Finished with Dimethylol Ethyleneurea"———J David Reid, Robert M Reinhardt, Terrence W Fenner, and James A Harris, Southern Regional Research Laboratory

"How Laminating Techniques Affect Corrosion Resistance of Reinforced-plastic Equipment for Textile Chemical Operations"——— S S Feuer and A F Torres, Atlas Powder Co

"APO, A Durable Flame Retardant for Cotton"———George L Drake Jr, Leon H Chance, John V Beninate, and John D Guthrie, Southern Regional Research Laboratory

"Estimated Costs and In-Service Evaluations of Chemically Modified Cotton Fabrics"———K M Decossas, H L E Vix, and E L Patton, Southern Regional Research Laboratory

"Dyes and Dyeing in the Confederacy"———Sidney M Edelstein, Dexter Chemical Corp

"Preparation and Evaluation of Selected Aliphatic Acid Esters of Cotton Fabric"———Manuel D Cruz—Lagrange, Carl Hamalainen, and Albert S Cooper Jr, Southern Regional Research Laboratory

"Imparting Dry Wrinkle Resistance to Cotton Treated in the Swollen State with Formaldehyde"———Terrence W Fenner, Robert M Reinhardt, and J David Reid, Southern Regional Research Laboratory

"Crease-resistant and Water-resistant Cotton from Dimethylolethyleneurea-Polysiloxane Emulsion Treatment"———John V Beninante, George L Drake Jr, and John D Guthrie, Southern Regional Research Laboratory

"Standardized Cleanliness"———G Weder, EMPA C

"Reactive Acrylics—A New Type of Textile Finishing Material" ———A C Nuessle and B B Kine, Rohm & Haas Co

"Properties of Synthetic Fibers with Respect to Wet-Processing Conditions and End-Use Performance—Dacron Polyester Fiber"——— Burt F Faris, E I duPont de Nemours & Co, Inc

"Measurement of Static Electricity on Fabrics"———Jack Turer and J K Smith, Sonneborn Chemical and Refining Corp

"Phosphate Ester Surfactants in Textile Processing"———C A Bergman and J J Robinson, General Aniline & Film Corp

Second Southern Textile Research Conference Planned

As a result of the unqualified success of the first Southern Textile Research Conference, held October 19-20 at the William Hilton Inn, Hilton Head Island, SC, plans are already underway to hold a second Conference at the same site in May, 1962, and to make it an annual affair.

Joseph C King, Verona Dyestuffs, Inc, has been elected chairman for the '62 Conference. Victor S Salvin, Celanese Fibers Co, will serve as program chairman for the '62 parley and will serve as chairman the following year. L B Arnold Jr, Vikon Chemical Co, who chaired this year's Conference, and Vernon C Smith, Burlington Industries, will serve on the Committee for 1962. Mr Smith is chairman of the Sectional Research Committee, Piedmont Section, AATCC, sponsor of the Conference.

Fifty-one conferees, four guest speakers and eighteen wives attended this year's Conference, which was limited to that number of conferees, selected from applicants to obtain as wide industry representation as possible. Of the 51 conferees, 18 were "mill" people, and the remainder represented fiber manufacturers, chemical and dye suppliers, research consultants, textile colleges, Government research laboratories, etc.

Theme of the Conference was "Solving Textile Problems Through the Use of Fundamentals of Science".

On Thursday, morning October 19, following an introduction by Mr Smith, Emery Valko, Lowell Technological Institute, offered an hour-long presentation on "Fundamentals of Dyeing Phenomena". Thereupon Dr Salvin led a discussion on the subject.

In the evening, Henry Millson, American Cyanamid Co, discussed the Microdyeoscope and showed moving pictures of dyeing phenomena. Discussion afterwards was led by Mr Smith.

Friday's program offered, in the morning, the presentation "Properties of Synthetic Fibers with Respect to Wet Processing Conditions and End-Use Performance" by E M Hicks Jr and Burt A Faris, Textile Fibers Dept, E I du Pont de Nemours & Co, Inc. The ensuing discussion was led by Gertrude A Lathrop, Old Fort Finishing Plant, Div of United Merchants & Mfrs, Inc.

Friday evening was devoted to a panel discussion on "Solving Problems Through Fundamentals", with Dmitry Gagarine, Deering Milliken, serving as chairman. Panelists were Wilson Reeves, Southern Regional Research Laboratory, USDA, on "Crosslinking"; Henry A Rutherford, North Carolina State College, on "Radioisotopes"; and A R Martin, Whirlpool Corp, on "Soiling".

Putnam to Change Name

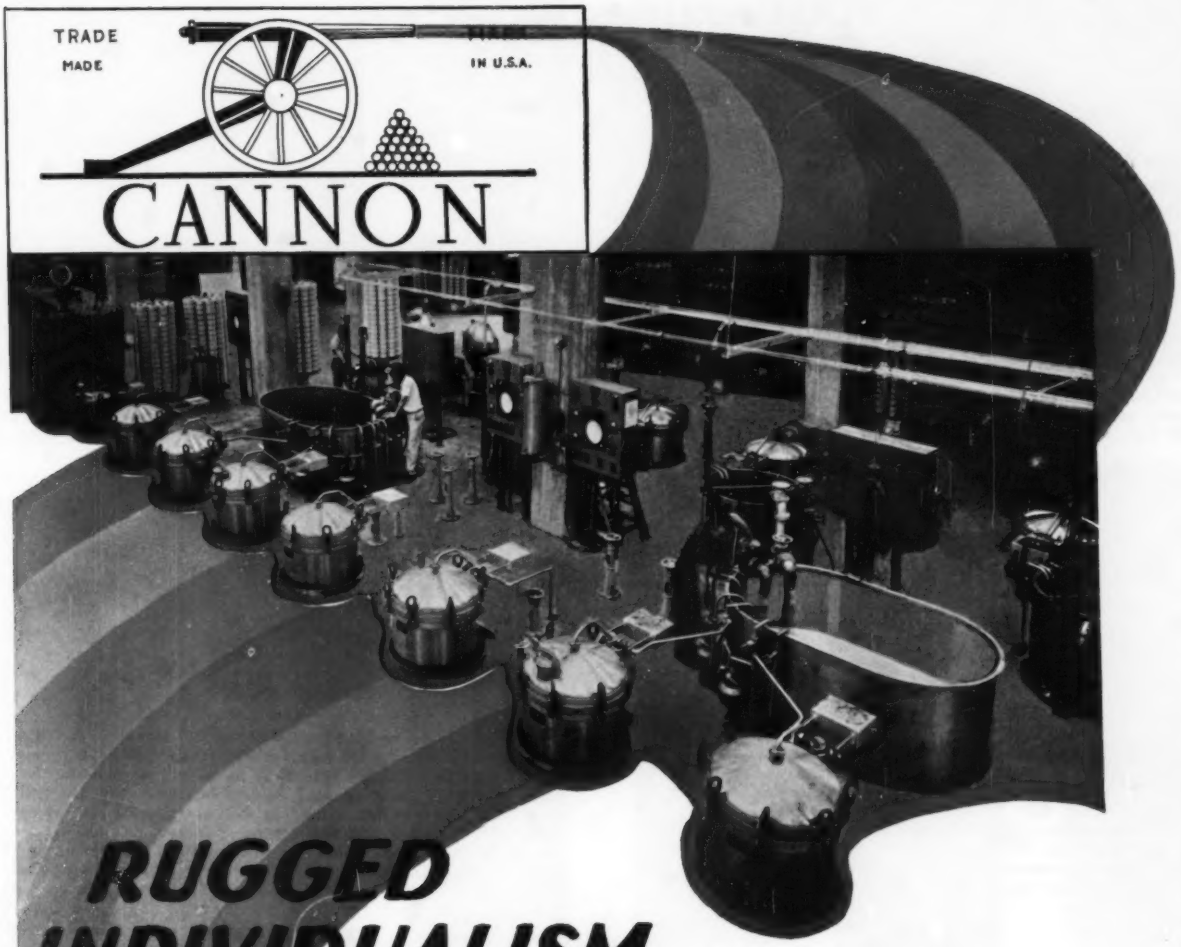
Putnam Chemical Corp, Charlotte, NC, will change its corporate name, to BASF Color & Chemicals, Inc, effective January 1, 1962.

It is believed that BASF Color & Chemicals, Inc will more closely identify the company's products and research in the field of colors and chemicals with its parent company, Badische Anilin & Soda Fabrik AG, Ludwigshafen, West Germany.

The change will coincide with the completion of fifty thousand square feet of office, laboratory, warehouse and manufacturing buildings on a fifteen-acre site, and the move of corporate headquarters from New York to Charlotte. A formal opening is scheduled early in the Spring of 1962.

TRADE MADE IN U.S.A.

CANNON



RUGGED INDIVIDUALISM at its best

The vast Cannon Textile empire didn't just happen. It is the result of basic policy decisions and firm, steady direction by members of the Cannon family through the years and the rare ability to select the right people to implement and carry out management decisions. The earnings record, one of the best in the industry, is ample proof that the decisions were right most of the time.

We take great pride in the fact that Gaston County beam and package dyeing machinery was selected by Cannon because we know that the company carefully evaluates equipment before purchasing.

The Cannon name is usually associated with towels, sheets and pillow cases, but the company is also a large producer of ladies hosiery, bedspreads and natural as well as dyed sales yarn.

40th ANNIVERSARY

GASTON COUNTY

Gaston County Dyeing Machine Co.

WORLD'S LARGEST PRODUCERS OF PRESSURE DYEING & DRYING MACHINERY

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A. R. Breen, 80 E. Jackson Blvd., Chicago, Ill.

The Rudel Machinery Co., Ltd., 980 St. Antoine St., Montreal, 278 Lakeshore Blvd. E., Toronto

PERSONALITIES IN THE NEWS

Schneider

Marbon Chemical Sales Division of Borg-Warner Corp has named *Martin H Schneider* technical sales representative for a twenty-one central state area with headquarters in Chicago. Prior to his new position, Mr Schneider was a sales assistant at Marbon's Woodmar plant in Parkersburg, W Va.

•

Whitesides

Clyde N Whitesides has been appointed sales manager for the textile chemicals department, American Cyanamid Company. He will be located at department headquarters in Bound Brook, NJ.

Mr Whitesides joined Cyanamid in 1949 as a sales trainee at the Charlotte office. He subsequently was named technical sales representative for textile chemicals in 1950, and southern district manager in 1960.

•

Andrews

Appointment of *O W Andrews* to the newly created position of director, marketing services for the chemical division of Pittsburgh Plate Glass Co has been announced.

Mr Andrews, formerly district sales manager at San Francisco, will be headquartered in the company's general offices in Pittsburgh. He joined the chemical division, formerly Columbia-Southern Chemical Corp, a Pittsburgh Plate subsidiary, at Barberton, Ohio, as a research engineer in 1939. He was named a technical service representative at Barberton in 1942 and three years later transferred to the chemical division's New York City district office as a salesman. He was appointed district sales manager at San Francisco in 1952.

•

John A Zelek, director of technical development for dye and textile products at the Hastings-on-Hudson plant of The Harshaw Chemical Company, has been appointed general manager of the newly formed Pigment and Dye Department at the company's Cleveland headquarters.

Mr Zelek will have direct charge of the sales, research, and manufacturing activities of all pigments, dyes and textile produtes produced in Harshaw's rapidly expanding plant facilities.

Soderberg

Frederic A Soderberg of Rensselaer, NY, vice president of the Huyck Corp and general manager of the Huyck Felt Co, was elected president of the University of Maine Pulp and Paper Foundation at the annual meeting of that organization which was held at the University of Maine.

•

Wise

L H Wise has resigned as director of research for the Sanitone Drycleaning Division of Emery Industries and has formed the consulting firm of L M Wise, Associates. Dr Wise will offer garment and solvent analysis for the full service and coin-op drycleaner, as well as consulting services to the allied trades and the textile industry.

Prior to joining Sanitone, Dr Wise was in charge of research on textile finishes with Hercules Powder Co. His office is at 1013 Pelican Dr, Cincinnati 31, O.

•

Brittain

Howard M Brittain has been assigned to Pennsalt Chemicals Corp's Atlanta Regional Office as a technical service representative. Brittain will be responsible for assisting textile finishing companies in the Southeast.

Previously, all of the division's technical service activities for textile finishing companies were conducted from company headquarters in Philadelphia. Brittain will operate from Pennsalt's Atlanta sales office located on College Park Road, Hapeville.

Before joining Pennsalt in May, 1961, Brittain was employed by the Bleaching Department of Cone Mills Corp, Greensboro, NC.

•

John H McCormick has joined the New Chemicals Marketing Division of Union Carbide Chemicals Company as product manager textile chemicals. In his new position, he will be responsible for the development of markets for new chemicals in the textile industry, including warp sizes, finishes, lubricants, and related products.

Mr McCormick has been with the Company since 1948 and most recently has been manager of new fiber sales for the Textile Fibers Division in New York.

Level, Even Dyeing

Time after Time with Univadine W

For hard-to-handle fabrics or blends, which produce unlevel dyeings, try CIBA Univadine® W. The photograph below is a typical example of what a big difference this unique product can mean to your dyeing operations. The deep, penetrating properties of Univadine W assure level, even, more uniform results under the most difficult process conditions. Whether the problem is related to dyestuffs or fabric construction, Univadine W is well worth investigating.

For further information, write CIBA Company Inc., Chemical Specialties Division, Fair Lawn, New Jersey.

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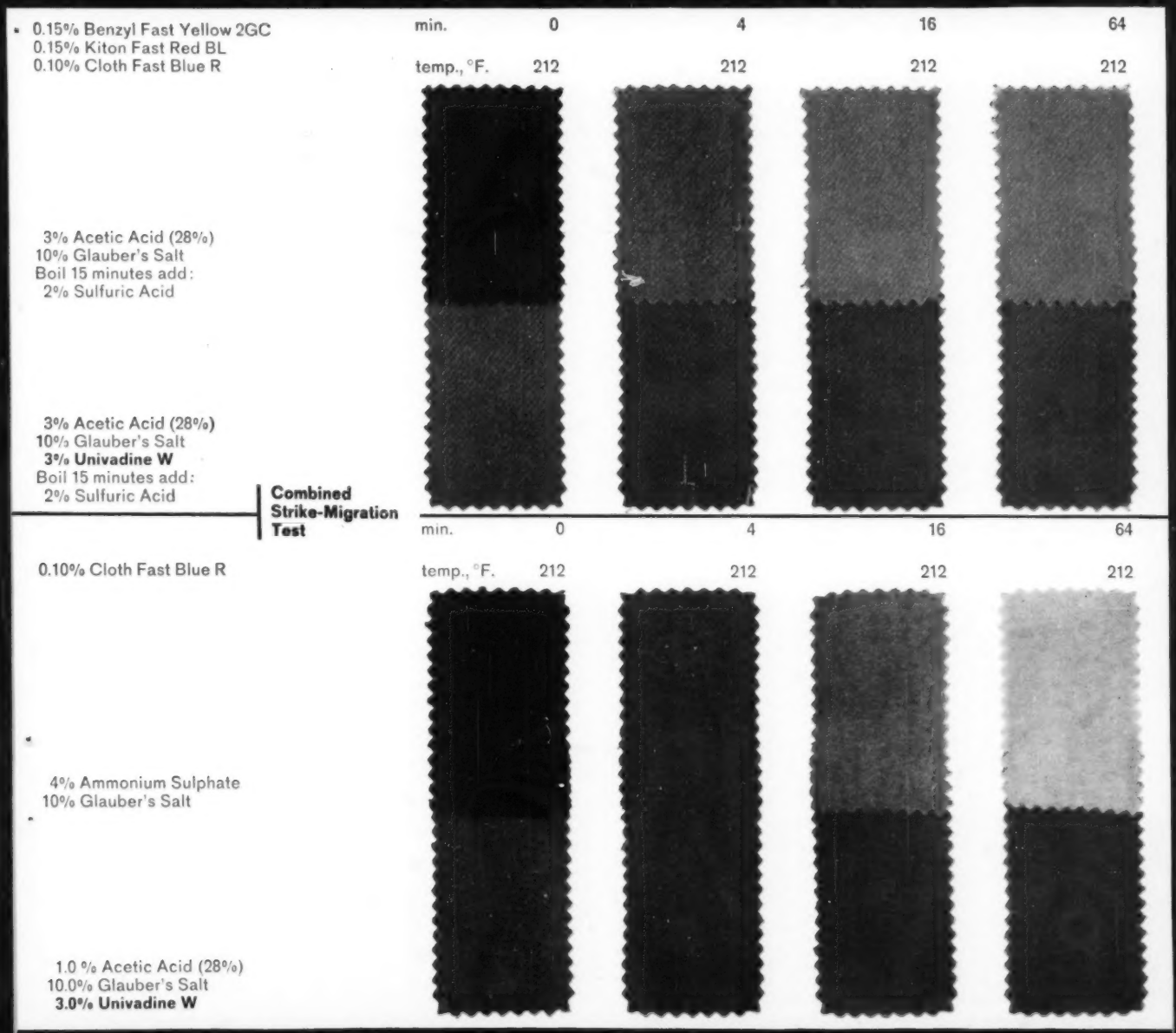
0.15% Benzyl Fast Yellow 2GC
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10% Glauber's Salt
Boil 15 minutes add:
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3% Acetic Acid (28%)
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Boil 15 minutes add:
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0.10% Cloth Fast Blue R
4% Ammonium Sulphate
10% Glauber's Salt
1.0 % Acetic Acid (28%)
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Mathieson takes costs out of caustic deliveries

A major cause of high shipping costs is the distance between your plant and your supplier. When your caustic soda is marked Mathieson, you can count on fast, economical delivery from one of eight producing plants and shipping points (with a ninth under construction) covering the industrial East.

Other ways Mathieson lowers delivery costs? Only Mathieson ships 73% caustic by truck for fewer trips, less weight on shorter hauls. Only Mathieson schedules truck shipments so you get caustic when you need it.

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CHEMICALS DIVISION Olin

Pitt

Kelly

Kerstner

Hurka

Stevens

Martone

Earle W Pitt has been named Western field sales manager of The Foxboro Co, Foxboro, Mass. Also announced were the appointment of *Earl M Kelly* as regional manager of the Cleveland territory and *Steve V Kerstner* as branch manager of the Company's Los Angeles office, replacing Mr Pitt.

Mr Kelly formerly assistant regional manager of the Cleveland territory, replaced *Harvey L Lee*, who passed away recently.

Mr Kerstner for the past six years has been a sales engineer with the Foxboro Los Angeles branch.

●

Victor R Hurka has been appointed assistant plant manager of the Chambers Works of Du Pont's Organic Chemicals Department.

Named to succeed Dr Hurka as director of the Technical Laboratory of the company's Dyes and Chemicals Division is *Robert F Stevens* who, for the past four years, has been division sales manager for industrial chemicals.

J Donald Martone will assume responsibility for the sale of industrial chemicals in addition to his present duties as intermediates sales manager.

●

Mitchell

Gendreau

Raymond J Mitchell has been promoted to sales manager for the New York District Sales Office, Sandoz, Inc. He joined the Sandoz organization in 1939 and has been sales manager of the Cincinnati District Sales Office for the past seven years.

Harvey G Gendreau succeeds Mr Mitchell as sales manager of the Cincinnati District Sales Office. He has been associated with Sandoz, Inc since 1945 as sales representative in upstate New York and adjacent areas.

●

Wlodek L Ginilewicz has been appointed a supervisor of technical service for Air Reduction Chemical & Carbide Company, a division of Air Reduction Company, Inc. Ginilewicz will be in charge of technical service to the textile industry, supervising research on textile sizings, coatings, finishes, binders, and related applications for polyvinyl alcohols, polyvinyl acetates, surface-active agents, and other chemicals.

Formerly a senior chemist in the central research laboratories of Air Reduction Company, Inc, Ginilewicz joined Airco in 1960 to conduct long-range studies on textile applications. His operations will be transferred from the central research laboratories at Murray Hill, NJ, to the Air Reduction Chemical & Carbide development laboratory at Bound Brook, NJ.

Earlier, Ginilewicz was a group leader with Onyx Chemical Corp, Jersey City, NJ, responsible for research and development of textile chemicals.

●

Robert M Stopford of J P Stevens and Co was elected president of Woolens and Worsteds of America, Inc, at the annual meeting of the Board of Directors. Mr Stopford, a director, succeeds *George A Ott* of Richard M Ott & Sons, Boston.

Officers reelected at the meeting were *G Fenwick Shepperd*, executive vice president; *William Kent, Stuart MacArthur, Ronald A Mitchell* and *Elsie Murphy*, vice presidents; *Fred Fowles*, treasurer, and *Ernest S Meyer*, secretary and counsel.

Elected to the Board were *George Staff*, president of Pacific and Raeford Worsted Co, a division of Burlington Industries, Inc; *John M Lindsay*, president of Botany Finishing Co, and Mrs Murphy, president of Old Bennington Weavers, Inc.

Underwood

Calvert

E S Underwood has been named to the position of product manager—surfactants, and *W C Calvert Jr* has been appointed product manager—heavy chemicals at Antara Chemicals, a Division of General Aniline & Film Corporation, New York.

Mr Underwood previously held the position of manager—heavy chemicals since 1959.

Mr Calvert, prior to his new appointment, was assistant product manager—heavy chemicals since July 1960.

Pels

Werner Pels, a member of the staff of the National Cotton Council of America, has been named a research adviser to the Southern Utilization Research and Development Division of the U S Department of Agriculture, with headquarters in New Orleans. He is to specialize in collaboration on canvas products research at the Division.

Joining the research staff of the National Cotton Council in 1958, Mr Pels was connected with the mechanical processing section of the Utilization Research Division until July 1960, when he transferred to the finishing section.

●

JOHN C ROBERTSON

JOHN C ROBERTSON, textile sales representative for the Wallerstein Company, Staten Island, NY, died suddenly on November 12.

Mr Robertson joined the company in 1948. He was southern regional representative for Wallerstein, a division of Baxter Laboratories, Inc, Morton Grove, Ill.

Textured Yarns

Poisson, W H, *Modern Textiles* 42 55-7, Sept 1961

The primary purpose of texturizing continuous-filament yarns is to create greater volume for a given weight and to simulate some of the characteristics of spun yarns. Moreover, textured yarns represent important potential economic advantages to knitters and weavers.

Yarn texturing processes are much simpler than carding and spinning, and require far smaller investment in capital equipment and building. It is illogical to deliberately cut up continuous synthetic filaments to make staple which then has to be laboriously and expensively reassembled to form a spun yarn.

At the consumer level, the performance advantages of fabrics of textured yarn are so obvious, the author says, that a trend to ever-increasing demand is already under way. For the consumer in the home, textured yarns mean fabrics that retain all of the esthetic appeal of spun fabrics, but with wider versatility, considerably reduced weight, improved hand and drape, greater comfort through increased moisture absorption and transmission, dimensional stability after cleaning, and the virtual elimination of pilling and fuzzing.

Most textured yarns are produced today through one (or more) of the following processes: heated knife-edge (eg, "Agilon"); stuffing-box (eg, "Textralized"); air-jet (eg, "Taslan"); and false-twist/stretched (eg, "Saaba").

Although texturizing has been developed mainly with nylon and polyester yarns, there is every reason to assume that the trend away from staple and toward textured continuous-filament yarns will continue in all synthetic fiber categories.

The author states that a textured continuous-filament carpet yarn made from Caprolan (nylon 6) is being used at a rapidly increasing rate. The experience of the carpet industry—expansion of textured continuous-filament yarns not only at the expense of staple synthetics but of natural yarns themselves—may well be the pattern for every area where textured yarns make a successful penetration. This eventually may mean "the gradual demise of spun yarns", he says.

•

Testing Lightfastness in Fading Lamps

Brunnschweiler, E, *Ciba Rev* 1961/3, p 32-5

Fading lamps for testing lightfastness are used mostly because daylight exposures, especially in winter, are too slow. Unfortunately, the results of daylight tests and those made with fading lamps do not always agree.

Lightfastness tests may be affected by the following factors: spectral composition and intensity of the light source, temperature and humidity, industrial gases and other atmospheric contaminants, nature of the substrate (fabric), depth of shade, dyestuff combination used, and pretreatment and aftertreatment of the fabric.

A wide variety of fading lamps from several firms is available on the market. Of these, some models, operating on identical basic principles, are suitable for testing both light and weathering fastness. Depending on the light source used, all the lamps obtainable fall into one of two large groups.

Carbon-arc Fading Lamps. The most widely used instruments are the Fade-Ometers and Weather-Ometers of the Atlas Electric Devices Co in Chicago, USA. The range offered at present comprises two different Fade-Ometers and 15 Weather-Ometer models.

Among less widely known instruments belonging in this class are the following: Brillantbewitterungsanlage (Wilhelm Staub, Neu-Isenburg, Germany); C P A Fading Lamp (Calico Printers' Assoc Ltd, Manchester, England); Fugitometer (Kelvin & Hughes Inc, Ltd, Glasgow, Scotland); and Suntest (D Rothschild, Zurich, Switzerland).

The Atlas Co now supplies also three models of Weather-Ometers incorporating a "Sunshine Carbon Arc Lamp" whose emission spectrum differs appreciably from that of conventional carbon arcs.

Xenon-arc Fading Lamps. Europe is most familiar with the "Xenotest" fading and weathering lamps marketed by Quarzlampen GmbH, Hanau, Germany. At present there are four models equipped with xenon arcs.

The Atlas Co has recently come out with three new Fade-Ometers and three Weather-Ometer models, all fitted with water-cooled 6000-watt xenon arcs, supplied by Osram GmbH, Munich, Germany.

Mention may also be made of the "Xeno-Lep-6000" fading lamp, made by Dr Ing E Huber Ltd, Zurich, Switzerland.

A graph is included, showing the spectral characteristics of the carbon and xenon arcs compared with summer daylight.

Carbon arcs hitherto used emit a light rich in u v and actinic radiation, but with a low content in the visible region. The xenon-arc spectrum is nearest to that of daylight. The somewhat increased proportion of u v radiation is readily filtered out by ordinary window glass.

The "Sunshine Carbon Arc Lamp" has an emission spectrum intermediate between those of the two usual types of light source. U v radiation, though still considerable, is substantially reduced compared with carbon-arc lamps previously available, while the proportion of visible light emitted is greatly increased.

Many papers have been published comparing the merits of daylight and fading lamps, and the Fade-Ometer and Xenotest methods, but developments in this field, according to the author, are "in a state of flux". He states, however, that results of exposure in xenon-arc lamps tend to correlate better with daylight exposures than do results obtained with carbon-arc lamps.

Reference is made to a paper in *Textil-Rundschau* 14, 504-12, 595-600 (1959).

•

Fiber-surface Contaminants on Wool and Their Effect on Shrinkproofing

Farnworth, A J, *J Soc Dyers & Col* 77, 489-95, Oct 1961

Many methods have been developed for shrinkproofing wool by deposition of resins on the fiber surface. However, to obtain the maximum effect from such treatments, it is essential to have high resin-fiber adhesion, which can be achieved by giving the wool some form of pretreatment before applying the resin. The function of the pretreatment appears to be to clean or to roughen the fiber surface (or to do both), and one of the most effective pretreatments is extraction with ethanol.

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The author has found that ethanol extraction also has a very marked effect on the degree of unshrinkability obtainable by treatment with aqueous solutions of reducing agents.

He points out that normally processed wool fabric contains a small amount (about 0.5-1%) of wax (said to be strongly adsorbed components of wool wax) which is removed by extraction with alcohols but not by many other solvents. This wax contaminant affects resin adhesion, some shrinkproofing reactions, and dyeing rates.

Ethanolic solutions of reducing agents (eg, thioglycollate) and aqueous solutions of oxidizing agents (eg, permanganate) are able to shrinkproof fabric which has not been alcohol-extracted, despite the presence of residual wax. Their effectiveness is not due to removal of the natural contaminant during treatment.

Small amounts of lubricant-type surface contaminants (eg, oils, waxes), applied after mild chemical shrinkproofing treatments, restore the felting power of the treated wool. This effect appears to be due to modification of frictional properties by a lubricating action, although the restoration of the felting power occurs without alteration of the frictional coefficients. More severe shrinkproofing treatments are generally unaffected by contaminants applied after treatment. Deliberately applied contaminants present before treatment can prevent the shrinkproofing reaction from occurring with both oxidizing and reducing agents.

Twenty-one references to the literature are cited.

•

Current Desizing Techniques

Hall, J A D, *Dyer* 125, 727-30, May 19, 1961

Recent years have seen great developments in resin finishes and their extension to the finishing of cotton. With the introduction of these finishes and the extension of hydrogen peroxide and sodium chlorite bleaching, it has become of paramount importance that the fiber be completely clear of all sizing material.

Batch processing for size removal still probably forms the main method utilized today, and the most suitable for short runs. The author is of the opinion, however, that batch processing, involving the impregnation of cloth and subsequent piling in wagons or pits, is on the decline. He feels that desizing on either the jig or the winch will continue to be required, but it will be used less in the future.

When malts are used, the normal temperature is in the region of 50-55°C, but the newer bacterial enzymes make it possible to desize at 70-75°C. This is an advantage for close weaves (eg, cotton-Terylene gabardines).

The author reviews the development of continuous high-speed desizing processes. The first steps were taken by the introduction of the J-box. The cloth was impregnated, allowed a certain reaction time in the J-box, and then boiled-off. The disadvantages of this system are the lack of close control in the J-box, lack of heating, and consequently slower desizing; also the need of a considerable area to handle a large volume of cloth.

The next continuous system utilizing drying cans in order to heat the cloth, which was padded with the enzyme, squeezed and subsequently passed over a conventional range of cans. A disadvantage is the incomplete saturation of the cloth, resulting in only partial conversion of the starch.

Various mbdifications of this principle are described. The system that has the most promise for the future, according to the author, uses a conventional steamer or specially built brick steam chamber. The cloth is padded through the desizing solution at 50-60°C and passes into a saturated steam atmosphere. The time in the steamer may be anywhere from two to 30 minutes. By suitable adjustments, all types of cloth can be successfully desized in this way, the author states.

Enzymes used in this system must of necessity be of bacterial origin, and must be able to convert starch at a rapid rate and to stand temperatures of 100°C or above.

•

The Bleaching of Textiles—Science and Art of Bleaching

Lunger, G A, *Can Textile J* 78, 41-4, July 7, 1961

Essentially all cellulosic fibers are bleached with either chlorine compounds or peroxide or both. Hypochlorites have been largely replaced, due in part to improvements in techniques of stabilizing and handling hydrogen peroxide. Chlorine compounds are more vigorous oxidizing agents than hydrogen peroxide, although equal degrees of whiteness with minimum loss in fiber tensile strength can be achieved with both.

More careful control is required with chlorine compounds. The decomposition products of hydrogen peroxide are only oxygen and water, simplifying the necessary treatment subsequent to bleaching.

Goods bleached with hypochlorite may slowly turn yellow with age. This color change is apparently associated with chloramines, which are formed from hypochlorite and the proteins in the crude cotton fiber. Subsequent treatment with hydrogen peroxide prevents yellowing by destroying the chloramines, and in doing so has less damaging effect on the fiber than some other antichlors.

The author describes the single-stage process for bleaching cotton cloth with peroxide—which includes a chemical saturation, J-box, and attendant washers. Cotton tubular knit goods may also be bleached by this system.

Sodium chlorite, used as a bleaching agent, is activated by chemicals which react with chlorous acid to form chlorine dioxide. An optimum range of conditions for the bleaching of cotton would include 0.2-1.5 gpl of sodium chlorite, pH 3-3.5. and a temperature range 170-210°F. Under these conditions chlorine dioxide gas is formed and is the active bleaching agent. Metals such as iron and nickel catalyze the release of the chlorine dioxide and affect the bleaching rate.

Directions are given by the author for a continuous bleaching technique for sodium chlorite, using an open-type J-box.

Wool in various forms may also be bleached by sodium chlorite, but chlorine-type bleaching agents degrade wool, and peroxide is commonly used instead. To obtain a satisfactory bleach, the wool must be properly scoured. In the case of raw stock, the wool is bleached in the last bowl of a scouring train. The bleach bowl, usually of stainless steel or lead-lined, contains hydrogen peroxide and sulfuric acid. Instructions are also given for bleaching wool in a standing peroxide bath.

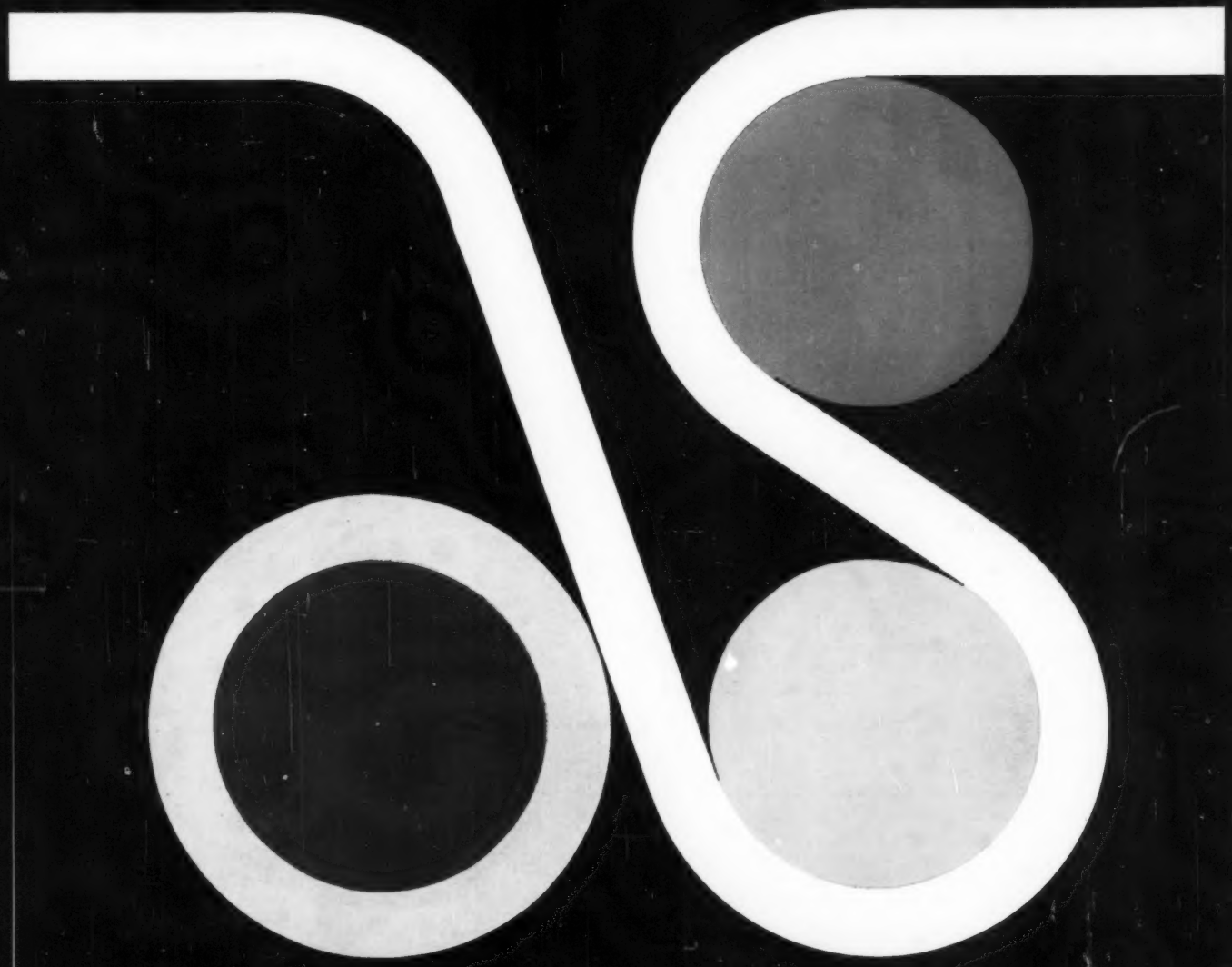
For some end uses, a sufficient degree of whiteness is obtained by treating wool with sodium hydrosulfite at 120°F.

•

Lightfastness Studies of Basic Dyes on Acid-modified Dacron Polyester Fiber

Maerov, S B and Kobsa, H, *Textile Research J* 31, 697-703, August 1961

Application of basic dyes to acid-modified polyethylene terephthalate fibers offers such attractive features



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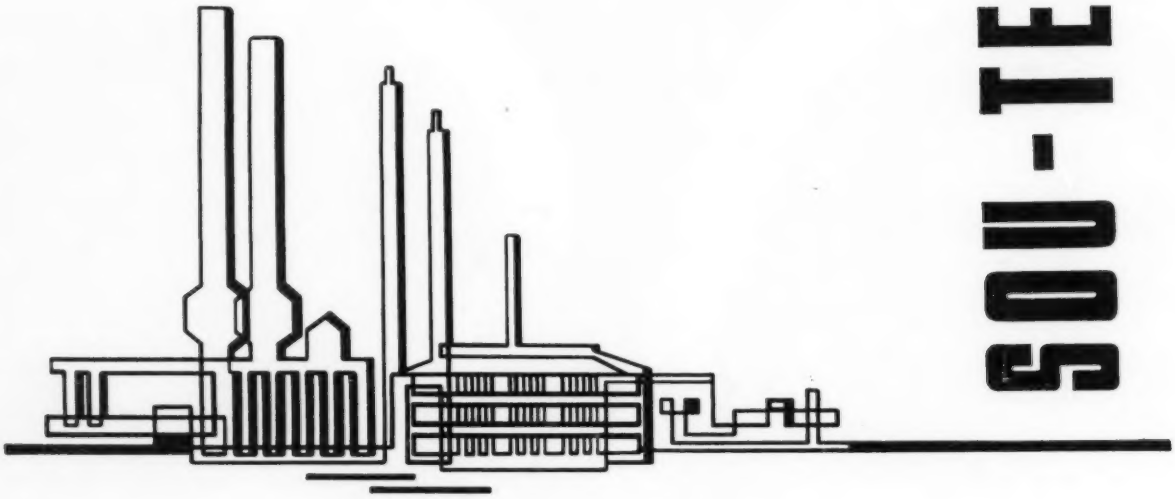

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A variety of basic dyes of the "Sevron" type, and the recently announced "Dekatyl" dyes recommended expressly for Types 62 and 64 Dacron, may be applied to this fiber substrate with adequate lightfastness in men's and women's wear. Some basic dyes, however, have shown inadequate lightfastness when applied to this fiber

Lightfastness studies of basic dyes on Dacron Types 62 and 64, using filters, indicate that the Critical Fading Region (C F R) of sunlight is a rather narrow spectral region extending from 350 to 425 mμ. It is believed that this results from the interplay of several factors, three of which are particularly important: the dependence of the quantum yield of fading on wavelength, the spectral distribution of sunlight, and the absorption characteristics of the polymer substrate. At long wavelengths (above 390 or 425 mμ, depending on the dye) the quantum yield of the fading reaction drops to very low values, and such light causes little or no fading. Light of wavelengths shorter than 350 mμ, on the other hand, is of relatively small abundance in natural sunlight.

The hypothesis that protection against fading could be obtained by screening out the wavelengths in the C F R was tested with a number of organic compounds having strong light absorption properties in this spectral region. Certain substituted hydroxybenzophenones act as light screeners with many of the basic dyes in the C F R, and extend their lightfastness in dyed fabrics. Many of these screeners can be applied to the fiber by normal dyeing techniques.

If a u v absorber is to be employed for protecting dyes on fabrics in actual use, the absorber must be evaluated on the fiber substrate in the presence of dye. The fact that a compound absorbs strongly in the C F R does not necessarily make it a good screener. Of a considerable number of potential screening agents tested, only a few conferred protection upon basic dyes when applied directly to the fabric. The others were ineffective or even caused accelerated fading.

In order to be effective as a screener, a compound must be able, not only to absorb harmful light, but also to dissipate it in a harmless fashion, and must not transfer absorbed energy to the dyes.

The "screening approach" described above offers possibilities for dyes whose lightfastness is marginal. It is only one solution to this problem, since more lightfast basic dyes have already been commercialized, and dyes with inherently improved light stability are currently being developed, the author states.

Ten references to the literature are cited.

•

Continuous Dyeing of Nylon

Fletcher, R E, *Dyer* 126, 197, August 11, 1961

Continuous processing of nylon has been known for some time, the author says, but it has been largely untried in bulk application.

The author points out that when acid and metal-complex dyes are applied to nylon by the usual methods, they do not cover barry material. The latest continuous dyeing methods overcome this trouble to a considerable extent, he says. It is mostly for this reason that interest is shown in continuous methods.

The pad-steam dyeing method is discussed, in which acid and metal-complex dyes are used and fixation is accomplished by steaming. Thorough desizing and scouring of all goods to be padded is recommended. Both bowls of the padding mangle should be rather soft and in perfect condition. It is desirable for the nylon to leave the nip under as high a uniform tension as can be conveniently applied across its width.

Since the dye liquor is more concentrated than in ordinary dyeing techniques, it is desirable to use additions such as Lyoprint and thiourea to aid the solubility of the dye.

It has been found much easier to obtain level paddings by adding a thickener to the padding liquor; a wetting agent is usually included also.

Trouble has been experienced in drying the padded cloth. Contact with guide bars and rollers should be avoided.

The trend now is to give longer steaming times (eg, from 5 to 10 minutes) rather than the shorter times employed in pad-steam ranges used for cotton.

Another method of continuous dyeing, found useful for most synthetic fibers and blends with natural fibers, involves the use of resin-bonded pigments. There are a number of pigment-padding sytems now on the market, and the "Microfix" process is typical of this method of pad dyeing. Preferential pickup of the dye in favored areas, due to chemical differences within the fabric, is no problem when using pigments. In this respect, the author says, resin-fixed pigment systems are ideal for continuous-application ranges. He admits that there are mechanical difficulties, especially in drying.

•

Synthetics—Growth or Decline?

Chornyei, E J *Can Textile J* 78 45-6 August 4, 1961

"Every day there is increasing evidence that cotton is making a comeback." says the author. In some cases, the changes in consumer preference from cotton to synthetics and back to cotton again is easily explained.

For example, doctors and nurses were enthusiastic in their acclaim for uniforms made of synthetic fibers, because of their "wash-and-wear" properties. Later, it was discovered that the delicate washing and minimum ironing with a cool iron required by the synthetics were hardly enough to destroy the germs and bacteria that were carried by the uniform! Now, "the swing is back" to the old cotton uniform that can be boiled and pressed with a hot iron to kill the infection carriers.

Furthermore, despite the numerous advantages inherent in the synthetics certain problems have not yet been overcome. Appearance and 'hand" of the synthetics "simply don't measure up to the crispness and comfort of cotton," the author says.

On the other hand, more and more finishes have been developed during the last few years that give cotton the same easy-care attributes as the synthetics. An all-cotton shirt or dress can now be machine-dried without needing ironing.

This cotton come-back does not "signal the demise of synthetics," says the author. They have firmly established themselves in the minds of the consumers. However, the fiber developers, the fabric weavers and the garment manufacturers must apply their ingenuity to the further development of all synthetics, he says.

For instance, a good area that promises to offer many possibilities is stretch yarns. For ten years, Europeans have been concentrating on the development of woven fabrics that incorporate stretch yarns. The U S is only beginning to realize the possibilities in this field.

Unlike other fabrics, woven fabrics with stretch yarns must be created with the end product in mind. In the imported products, particular emphasis has been placed on "action" garments, because stretch yarns are ideal

for movement, neatness and comfort. Presently, most stretch yarns are nylons, but polyesters will probably come into greater use in the future, the author predicts.

The creation of the elastic quality in the fabric is accomplished by the weaver, and the finisher must be careful not to ruin the elasticity by treating the fabric improperly.

In this field of stretch yarns that incorporate synthetics, it is perhaps most important to set up standards and testing methods of stretch yarns to prevent the market from becoming flooded with inferior merchandise.

The author estimates that from 500 to 800 looms are currently being used in the U S for the production of woven stretch fabrics, but he states that this is only a small percentage of total looms in this country. From 2 to 4½ million pounds of 70-denier nylon stretch yarns are expected to be produced in the U S in 1961.

●

Terylene Polyester Fiber and Its Application in the Rubber Industry

Little, J S *Can Textile J 78*, 57-62, 65, Sept 15, 1961

Textile fibers ,for use in rubber products such as V-belts, conveyor belts and tires, require the following properties: the strength to resist an applied load; flexibility and maintenance of strength under service conditions; heat and chemical resistance; dimensional stability; and good adhesion to rubber. The author shows how well Terylene fulfills these requirements.

A table is included, listing the physical properties of Terylene compared with nylon 6.6 and rayon. It can be observed from the table that the polyester fiber possesses a relatively high tenacity which is not significantly affected by moisture, and that it is a very hydrophobic fiber with a moisture regain of only about 0.4% at 65% R H and 70°F, as compared to the higher values for nylon and especially rayon. Terylene also has a low extension at break and a high modulus of stretch, which means that a relatively high load is required to stretch the yarn a small amount.

The resistance of Terylene to mineral and organic acids is outstanding. Although it is attacked by alkalis, its resistance is adequate for rubber applications.

To use Terylene filament yarn as a rubber reinforcement, it must first be converted into the required cord or fabric. It must then be heat- and adhesive-treated, and finally bonded to rubber.

Terylene has the property of shrinking at high temperatures. At 300°F, a temperature frequently employed in vulcanizing rubber, the Terylene yarn has a free shrinkage of approximately 12%. It is necessary that cords or fabrics made from this fiber be effectively shrinkage-stabilized before rubber-curing.

Most fibers require adhesive treatment before incorporation into rubber. Only a low level of Terylene/rubber adhesion is obtained normally with the well-known resorcinol-formaldehyde latex aqueous adhesive systems. However, in the past three years several aqueous polyester/rubber adhesives have been introduced, including a two-dip system developed in the author's laboratory, the application of which is described. The principal adhesive-producing ingredients in the first dip are Geon 151 (a polyvinyl chloride emulsion) and Versamid 125 (a polyamide resin). The second dip contains a latex-resorcinol formaldehyde resin.

The author concludes by describing some actual applications of Terylene in V-belts, conveyor belts and tires.

BOOK REVIEWS

Chemistry and Textiles for the Laundry Industry

Authors: Harry Cohen, Laundry Management consultant, NY, and George E Linton, PhD, dean of the Textile Department, Fashion Institute of Technology, NY
Published by: Textile Book Publishers, Inc
Division of Interscience Publishers
250 Fifth Ave,
New York 1, NY
pp: 429
Price: $13.00

This book attempts to portray simply, and concisely the many fundamental facts necessary for the efficient operation of a laundry. This objective includes consideration of not only the principles of basic laundering procedure but also the properties of common textiles, the dyeing of textiles and terminology of the textile industry. Attesting to its "up to date" character, the book includes a chapter on "Laundering of Radioactively Contaminated Fabrics".

●

Surface Activity, 2nd Edition

Authors: F L Molliet, B Collie, and W Black
Published by: D Van Nostrand Co, Inc
Princeton,
NJ
2nd Edition—Oct 6, 1961
pp: 518
Price: $15.00

The first edition of this book was considered to be a beacon to the traveler on the sea of detergents that have cropped up in recent years. The first edition is now ten years old and a revision of this standard text is indeed welcome. Perhaps the significant developments in the field of interfacial tension alone would justifiably call for this revision and enlargement of this scholarly work. The approach of this 2nd edition is still fundamental (from the physico-chemical point of view) in attempting to relate surface-active properties to the chemical structure and using physical chemical principles where appropriate. However, a considerable part of this book is devoted to technical applications of synthetic surface-active agents. This book is highly recommended to anyone concerned with the field of surface activity.

●

The Chemistry of Natural Products

Issued by: International Union of Pure and Applied Chemistry—Section on Organic Chemistry
Reprinted from: Pure and Applied Chemistry Vol 2, Nos. 3-4
Published by: Butterworth Inc (1961)
7235 Wisconsin Ave
Washington 14, DC
pp: 286
Price: $10.50
Published: 1961

This is a series of special lectures presented at the *International Symposium on the Chemistry of Natural Products* held in Melbourne, Canberra and Sydney, Australia in August 1960 and authorized by the Australian Academy of Science. A Stoll, A Todd, J R Price, R B Woodward, H Brockman, T R Govindachari, H W Thompson, C Djerassi, A McL Mathieson, F Sorm, D H R Barton, N A Sorenson, E Lederer, J W Cornforth and R Robinson have contributed to this volume. In the words of Sir Robert Robinson this symposium represents "an entrancement throughout, a spectacular demonstration of rapid progress and vitality, and a pledge for future advances".

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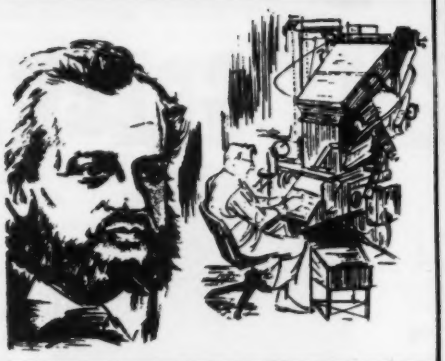

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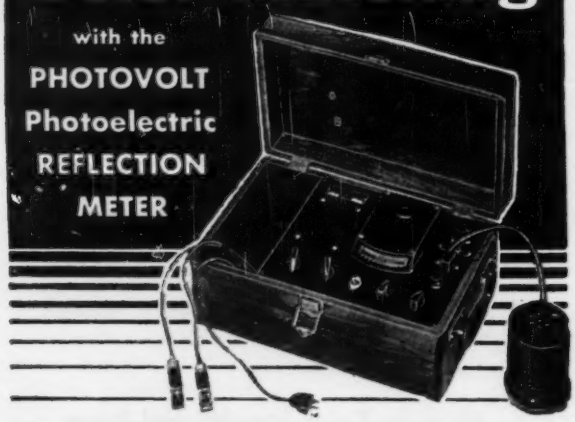

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Standard Laboratory pH Meter 115

$175 Including Electrodes

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77-44 164TH ST., FLUSHING 65, NEW YORK

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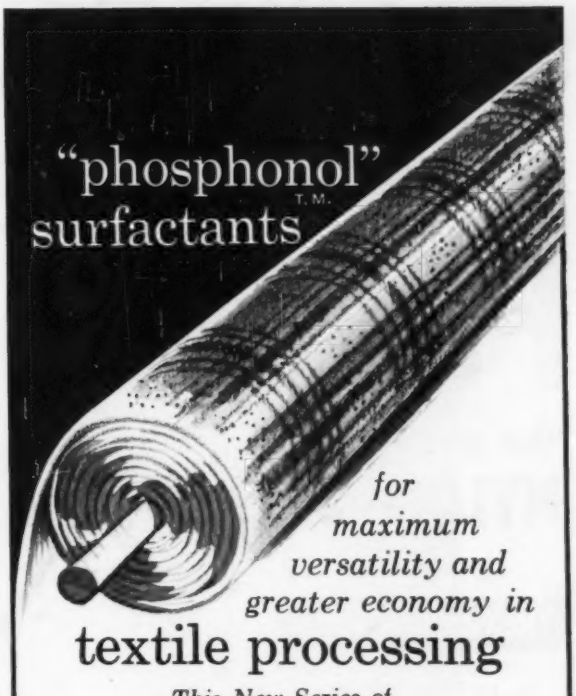

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The "Phosphonol" Surfactants are complex alkyl and modified alkyl polyphosphates in the form of readily soluble syrupy acidic esters at 98-100% activity.

These products show remarkable emulsifying, wetting, and detergent properties, particularly in acid and alkaline media. They have definite anti-corrosive and metal sequestering properties.

The "Phosphonols" offer the economy of a 100% product -- and when neutralized have THREE TIMES THE ACTIVITY of neutralized "50% active" products, and nearly FIVE TIMES THE ACTIVITY of commercial "30% active" potassium salts. They may be neutralized with any desired alkali or amine, diluted with water or solvents, or "dried" by pouring on alkaline builders.

Detailed literature is available on use of
"PHOSPHONOL" SURFACTANTS
in Textile Processing

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100% active solvent scour – tried and proven in use by many of the nation's leading finishers, who depend on it to get oil and grease soils and dirtiest knots out of Nylon, Dacron and other fabrics.

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Highly efficient detergent in paste form. For Nylon, Dacron and other fabrics. Brightens color and minimizes crocking when used as a soaping-off product for vats and napthols. Is also a highly effective general scouring agent.

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CHEMICAL MATERIALS CATALOG, Pages 159-161

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PLANT IN DOVER, OHIO
IN CANADA: HARCHEM LIMITED TORONTO

New Products (Equipment)

(continued from page 92)

textiles, paper and food processing, etc.

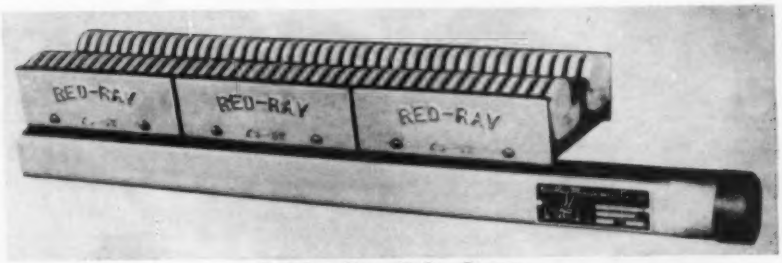
The type "K" burner is designed to produce the major portion of its radiation in the far infra-red wavelengths above 2.7 microns. The burner is manufactured in 2½", 4½" and 7" lengths, which can be mounted end-to-end on a common manifold, providing continuous heat radiators of from 2½" to 100' or more. Width of the burner is 6⅝". The new burner is available with profile adjustment of fuel input for each section, to permit profiling of heat output across the full length of the burner to adjust for varying heat requirements across the width of web or product being treated. Type "K" burner is said to be ruggedly constructed to withstand continuous industrial use. All metal parts are heat resistant alloys. Virtually flameless in operation, the burner has throttling capabilities of better than 10 to 1, providing an exceptionally wide range of flexibility.

* * *

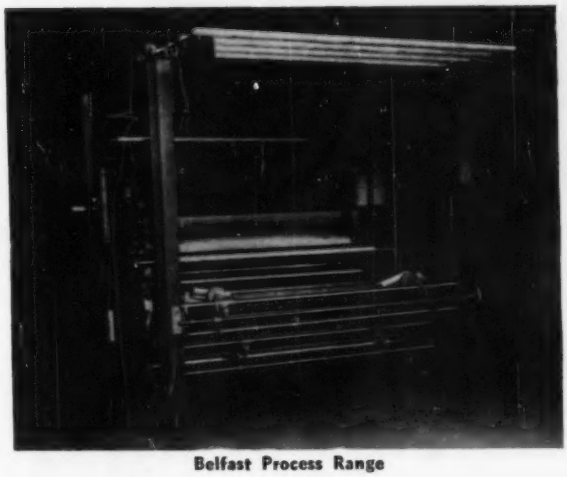
REPUBLIC FLOW METERS CO
Subsidiary of Rockwell Mfg Co
2240 Diversey Parkway
Chicago 47, Ill

MP-12 Analogger

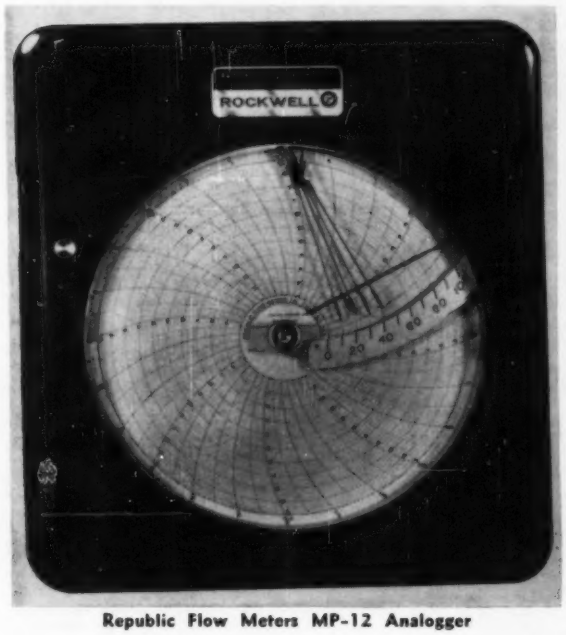
A 1 to 4 pen, 12" circular chart pneumatic receiver recorder which is ideal for flow recording. This instrument features a square root extracting 3-15 psig receiver for linear recording of a differential pressure signal. A continuous electric integrator which catches swings and gives up-to-the-moment totals is available to operate in conjunction with the flow receiver. A linear, 3-15 psig receiver is also available. Receiving and recording units can be interchanged to provide maximum recorder versatility.



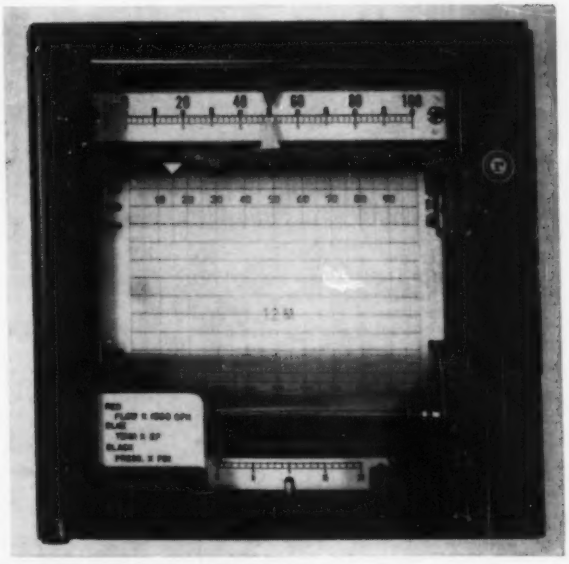
Red-Ray Type K Gas Burner



Belfast Process Range



Republic Flow Meters MP-12 Analogger



Republic Flow Meters Series ST4 Unified Process Control Center

Series ST4, 3-15 psig, Unified Process Control Center

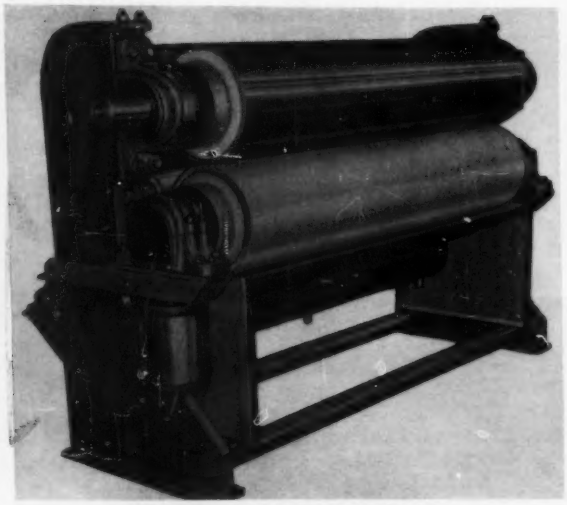
A readout and control instrument unified in one compact assembly. The ST4 offers any combination of the following: 1, 2 or 3 receivers for recording on a 4 inch strip chart plus indication on a separate scale by the primary receiver. MAN/AUTO, MAN/CAS or MAN/AUTO/CAS control stations. Plug-in Republic type VC pneumatic set point controller with proportional plus reset action.

* * *

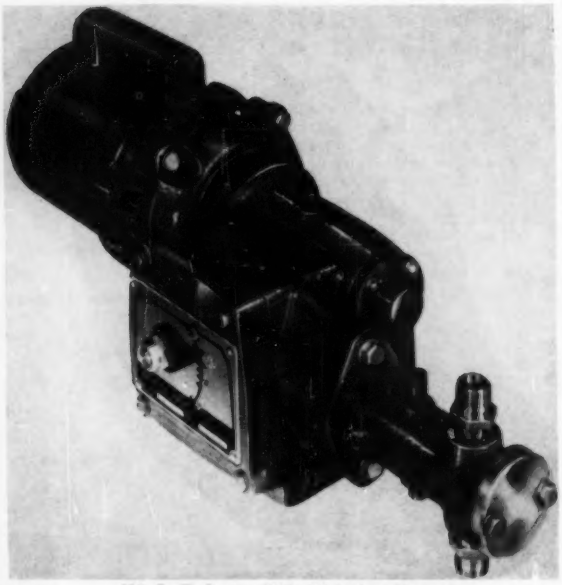
RODNEY HUNT MACHINE CO
24 Mill St
Orange, Mass

Equipment for Belfast Range

Special complete range equipment for use under license from Deering Milliken Research Corporation's wash and wear process. The complete range consists of entering guiding equipment, caustic saturator and padder, chemical applicator, wind-up, recirculatory chemical feed system and drive.



Rodney Hunt Wring-Master Padder



W & T Series 100 Metering Pump

Re-designed No. 95 Wring-Master Padder

The No. 95 Padder has been re-designed in 5-, 10- and 15-ton pressure capacities. The unit features special compact direct acting pressure pack air cylinders, eliminating cumbersome air cylinder lever arms and linkages. Also, split bearing housings greatly simplify roll removal. Steel frames and open design offers flat mounting surfaces for auxiliary equipment. Rolls are 14, 15 and 18″ diameter in face lengths up to 72″.

J-Box for Textone Bleaching

A new J-Box design incorporates special features and materials of construction for use with Olin Mathieson's new Textone bleaching process.

High Speed Plaitor for Bleaching J-Box

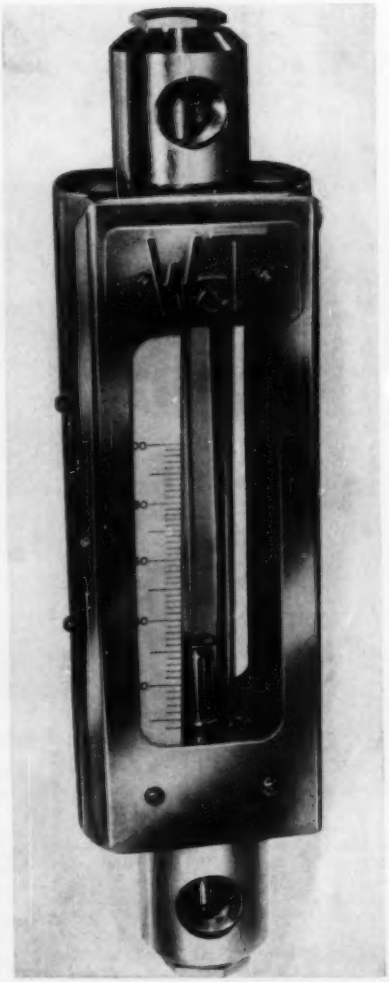
A new plaitor and pull-roll system has been designed for DuPont and Becco type J-Boxes used in rope bleaching ranges. Components are dynamically balanced and cloth speeds up to 400 and 450 yds/min are attained without danger of wrap-ups.

• • •

CHARLES ROSS & SON CO
148-156 Classon Ave
Brooklyn 5, NY

Triple Action Ribbon Blenders

These blenders feature double-spiral ribbon stirrers and modern design improvements which are said to produce the quickest and most thorough mixing action on all types of light, medium weight, or heavy dry (also wet) materials. The triple action stirrers include the conventional double spiral ribbon stirrers and, in addition, pitched stirrers or baffles are mounted on round cross members to eliminate dead spots near the shaft by breaking and tumbling the core of the mix. It is stated that this effectively moves material at center of the batch and feeds to the counter-opposed action of the inner and outer spiral ribbons. The large diameter stirrer shaft is provided with quick-release sleeve couplings so that the entire stirrer assembly can be quickly and easily removed for cleaning. Brochure #10DG is available.



W & T Glass-tube Varea-meter with Standard Enclosure

WALLACE & TIERNAN INC
25 Main Street
Belleville 9, NJ

Series 100 Metering Pump

Plunger metering pump designed to give accurate, economical metering against pressures to 1200 psi. Capacities range from 0.95 gph vs 1200 psi, to 50 gph vs 100 psi, at repeatable accuracies within ±1%. Pump is available with one or two liquid ends, for proportional blending or increased capacity. Stroking length of each liquid end may be adjusted individually, while pump is running or stopped, for added versatility. Series 100 has unitized construction with enclosed drive, eliminating rocker arm, and preventing misalignment. All wetted parts are said to be corrosion-resistant, allowing most chemical solutions used in industry to be safely pumped.

Accessories available include solution mixers, relief valves, and liquid level alarms. Tanks, with capacities of 50, 100, 250 or 500 gallons, can also be supplied in a choice of materials to give a complete pumping system. Further information is available in catalog 420.100.

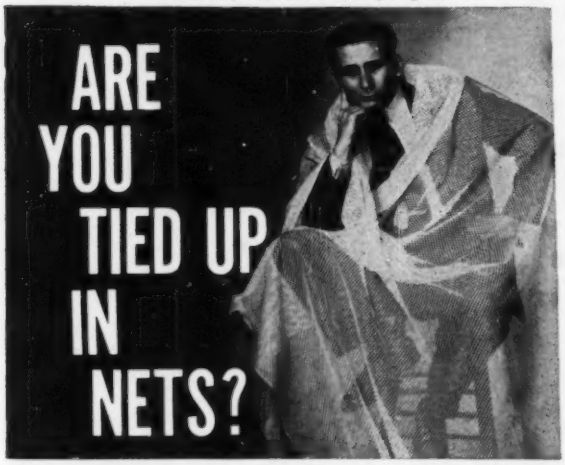
Varea-meter for Fluid Flow Metering

An improved version of the variable area flow meter for fluid metering. Glass-tube models handle most liquids and gases, viscous and non-viscous; metal-tube Varea-meters operate against higher temperatures and pressures. Varea-meter frames feature welded, unitized construction in heavy gauge stainless steel said to give corrosion resistance and prevent tube misalignment. A choice of frame arrangements and float sizes is available to meet most metering needs. Capacities—glass-tube Varea-meters: 0.25 to 310 gpm water, 1.1 to 1300 scfm air; metal-tube Varea-meters: 1.0 to 400 gpm water, 4.2 to 1680 scfm air.

A full range of accessories is available: magnetic indicators for opaque liquids, laboratory tripod, light fixture, heater, frost guard. A pneumatic transmitter (described separately) develops a 3-15 psi air signal for operating remote equipment. Further information is available in catalogs 520.100 and 520.000.

(concluded on page 144)

Fablok Versadye Nets are used thruout the Industry by the most progressive mills!



Tied up with a dyeing problem? ● Fablok Versadye® Nets solve that problem . . . give you complete dye-bath penetration without absorbing, whether you're dyeing sweaters or knitted fabrics of Orlon®, Dacron®, Nylon or Acrilan. ● Fablok knits superior synthetic Nets to the exact specifications you require (from yarn to finished product).

Send us your inquiry in full detail. We'll "tailor" the Net to fit your need.

• DuPont trademarks

Fablok MILLS, INC.

INDUSTRIAL NET DIVISION
46 Cordier St., Irvington, N. J.

NEW DUST-FREE SURFACTANT
SOLASOL NEEDLES

SOLASOL NEEDLES (SODIUM LAURYL SULFATE NEEDLES) eliminate the choking dust problem encountered when powdered surfactants are used. SOLASOL NEEDLES are also easier to store, handle and weigh.

SOLASOL NEEDLES give excellent results as the most effective anionic to prevent flotation, mottling and other adverse affects associated with flocculation.

Users of SOLASOL do not encounter the problem of batch to batch uniformity, a difficulty often associated with paste-form emulsifiers. Each lot of 90% active matter in SOLASOL NEEDLES is identical!

Take the next step towards improving plant operations and getting the competitive edge you've been looking for. Write today for further data and samples.

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CHEMTEX LTD., TORONTO

New Products (Equipment)

(concluded from page 142)

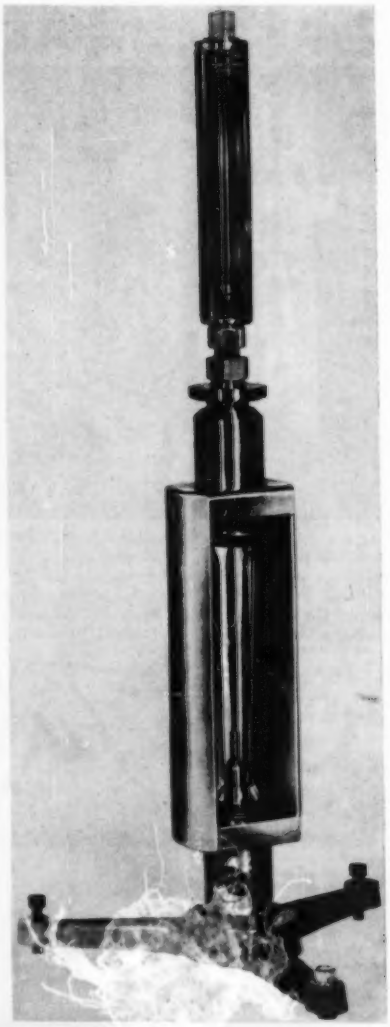
Pneumatic-type Varea-meter Transmitter

A pneumatic servo-type indicating instrument which produces a 3-15 psi signal proportional to fluid flow, for the operation of indicators, recorders, integrators, or controllers. Fits Wallace & Tiernan 5-inch glass-tube and metal-tube Varea-meters. Transmitter employs magnetic detection of the float rod position. It is stated that the sensor imposes no drag on the Varea-meter and cannot affect accuracy or sensitivity. It is further stated that closed loop operation minimizes effects of temperature and supply pressure variations, and rod misalignment or rotation. Transmitter has cast aluminum case for indoor or outdoor use, and can be equipped with heating element.

Response for 10 to 90% input change: 0.6 sec; sensitivity: 0.07% of full scale; accuracy: ±1% of full scale; capacities: 1.0 to 400 gpm water; 4.2 to 1680 scfm air. Range 10 to 1. Further information is available in catalog 530.100.

W & T Metal-tube Varea-meter with Pneumatic Transmitter

W & T Glass-tube Varea-meter with Magnetic Indicator and Laboratory Tripod



WESTFALL-CHAFEE LAMINATES
92 Spring Ave
West Barrington, RI

Dye Proportioning Apparatus

A dye/alkali mixing device for Procion reactive dye cold pad-batch applications. This device was developed by Imperial Chemical Industries Limited in England and originally manufactured in England. ICI's American subsidiary, the Arnold, Hoffman Company of Providence, R I has now licensed Westfall-Chafee Laminates, Inc to manufacture the device in the U S A. The device has been redesigned to use some fiberglass reinforced plastic parts and standard American mechanical and electrical components. This device mixing at full capacity delivers about 6 gallons per minute of dye/alkali mixture to the pad trough.

THE 1962 ANNUAL

PROCESSING REVIEW

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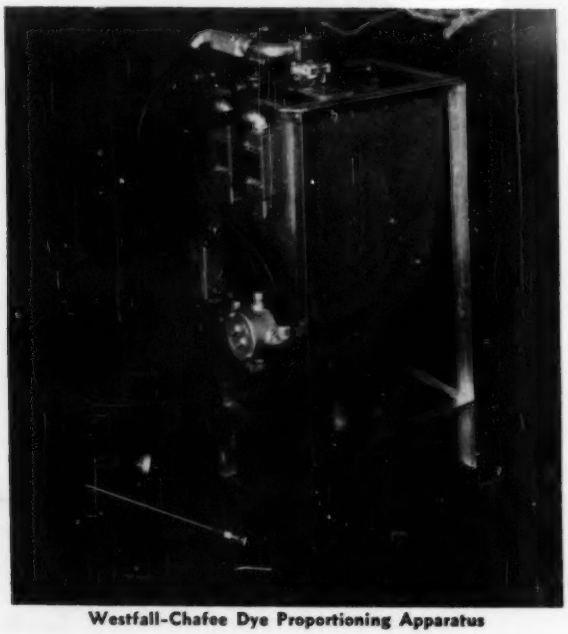
DECEMBER 10



Westfall-Chafee Dye Proportioning Apparatus

E.J.FEELEY COMPANY

E. J. Feeley Co.

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Here's the one Christmas Gift for your employees that helps *all* America.

Series "E" U.S. Savings Bonds encourage employee thrift and patriotism . . . act as an economic insurance policy in your community . . . get more valuable with each passing day. It's the one Christmas bonus for your employees that contributes to America's strength and the peaceful future of mankind.

To the company treasurer: How about a Savings Bond bonus for the company, too? Invest surplus funds in Series "E" and "H" Bonds. Each has an annual limit of $10,000 face value. Bonds are safe and sure. Their value is guaranteed. They don't fluctuate with the market. Both yield 3¾%, when held to maturity.

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water repellent:	CHEM-DRI:	Zirconium type water repellent. Durable to laundering and dry cleaning.
general:	TEXTRAFIX ANTI-FOAM EXTRA S FINISH 95 PRINTING GUMS	Our complete laboratory facilities are at your disposal. We stand ready to furnish you with technical data, product samples; and to demonstrate applications of our products right in your own plant!

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Extender for OIL REPELLENCY
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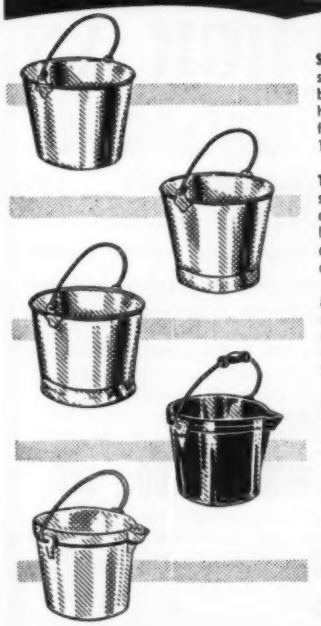
CORROSIVE RESISTANT PAILS



STAINLESS STEEL. Heavy gauge and seamless, with extra thick rims and bottoms, these pails can take rough handling without life-shortening effects. Plain or chime bottom. Sizes: 13, 16, and 20 quart.

TYPE 316 STAINLESS. For extra corrosion resistance with acids and other corrosive chemicals, Type 316 Stainless pails should be used. Plain and chime bottom. Sizes: 13, 16, and 20 quart.

MONEL. These welded Monel pails remain virtually unaffected by the corrosive attack of brine, most types of volatile fluids, acids and alkalies. Sizes: 12, 14, 16, and 20 quart.

HARD RUBBER. Made with a virgin rubber base, this pail will not crack or chip; it resists abrasion, heat distortion, and the corrosive action of a wide variety of chemicals. Capacity, 3 gallons, graduated 1 to 12 quarts.

POLYETHYLENE. Unbreakable and quite chemically inert, this pail is molded in one piece, with bale handle and broad pour spout for easy pouring. Extra heavy construction. 2½ gallon capacity only.

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READING, PENNA.

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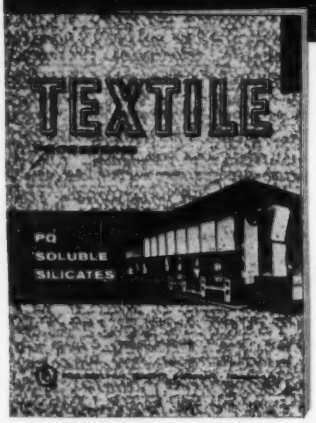

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DAITOPHOR AN

OUTSTANDING ITS FLUORESCENT WHITENESS & ITS FASTNESS TO LIGHT

DAITOPHOR AN, just introduced by our company, is soluble in water. This being cationic employment with anion dyestuff is not allowed, but it can be utilized in all sorts of acrylic fiber, and it is possible to dye in the states of staple yarn and fabrics, etc.

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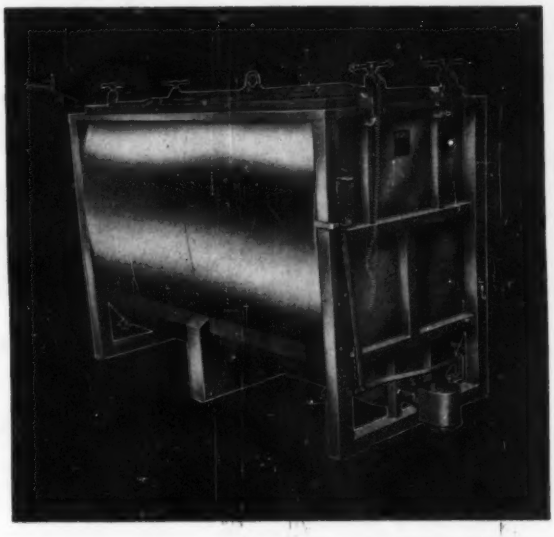

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WANTED: MAN FOR DYEHOUSE LABORATORY, with knowledge of procedures for dyeing cotton yarn on packages. State experience, age and salary expected. Location, Delaware Valley area. Write Box No. 255

WANTED: CHEMIST for textile chemical specialty manufacturer. Must have experience in analysis and development. Excellent opportunity with progressive company. Salary commensurate with experience and ability. Write Box No. 258

WANTED: Established Manufacturers Representatives to sell DURON PERMANENT MOTHPROOFING used at the mill and dye house level in the textile and dyeing industries. If interested write DURON CORPORATION, 5020 Richmond Road, Bedford, Ohio.

WANTED: TEXTILE CHEMICAL SALESMAN — Spencer Chemical Company offers a challenging position for a young man with experience in the sale of textile chemicals to textile chemical specialty manufacturers and textile manufacturers. Preferably, this man should have a technical degree in chemistry and/or textile technology, and have 4 or 5 years direct sales experience either in the manufacturing or textile industry. Location will be Southeast marketing area. In reply please send complete resume of experience, education, and salary requirements to: Personnel Manager, SPENCER CHEMICAL COMPANY, 1004 Baltimore Avenue, Kansas City 5, Missouri.

WANTED: TEXTILE SPECIALTIES CHEMIST, with two years minimum experience in field of surfactants, resins or finishing agents for textile use. Position involves laboratory work on development of new products and technical service for an established, progressive chemical company in Metropolitan New York area. Replies confidential. Write Box No. 259

POSITION AVAILABLE: SALESMAN TEXTILE CHEMICALS. North and South Carolina area. Require man with experience. Salary commensurate with ability. Excellent opportunity for agressive man. State Qualifications. All replies strictly confidential. Write Box No. 260

WANTED: SALESMAN—Progressive Dyestuff Manufacturer offering full range of dyes needs experienced plant man or sales demonstrator for Southern territory. Liberal salary, fringe benefits. Write Box No. 261

WANTED: TEXTILE CHEMIST as assistant to Dyer in dye house that does package and raw stock dyeing on cotton and synthetic fibers. Submit resume and salary requirements. All replies confidential. Our employees know of this advertisement. Write Box No. 262

• OPPORTUNITIES AVAILABLE •

WANTED: SALES/TECHNICAL SERVICE representative for the Carolinas and part of Georgia, to handle specialties including dyeing and bleaching assistants, wetting-agents, softeners, finishes, silicone water-repellents, defoamers, etc. Must have solid trade experience and thorough background in cotton and synthetics finishing, and ability to subsequently assume managerial capacity for the Southern area. Principal is well known Eastern manufacturer with long established reputation throughout the trade. Salary with bonus, transportation and other expense arrangements commensurate with caliber of individual. THIS IS AN OPPORTUNITY for a good man to profitably associate himself with a reliable organization in the process of sound expansion. Write Box No. 263

• PERSONNEL AVAILABLE •

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POSITION WANTED: GRADUATE CHEMICAL ENGINEER AND TEXTILE CHEMIST—20 years diversified experience academic work in chemistry research and development in dyeing and finishing production and supervision in resin and starch finishing. Desires position as finisher or Technical Salesman. Write Box No. 257

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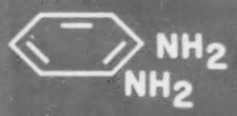
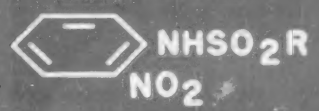


with sulfonyl chlorides



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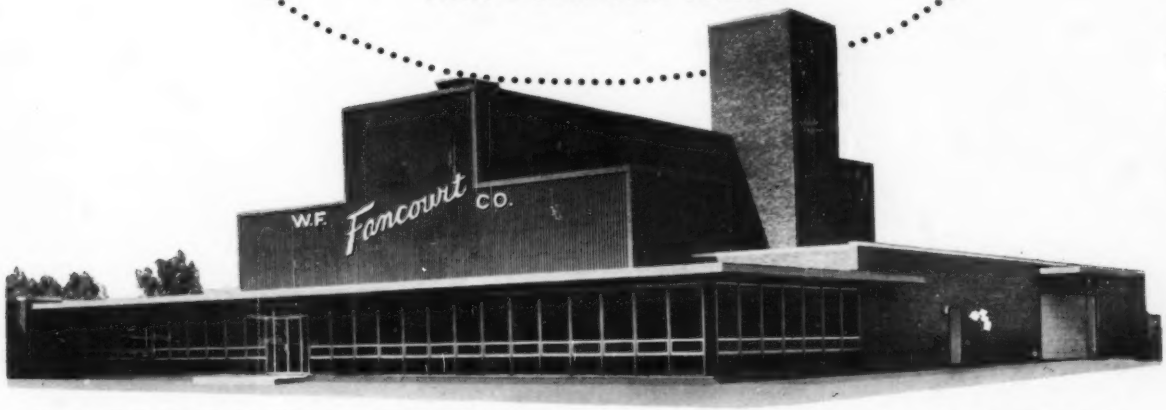

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Neckwear Colors Spark Men's Furnishings Sales

Colorful neckties, traditional escape valve of masculine yearning for color, are receiving increasing recognition and display in retail stores as a fashion "face lifter" for the entire men's furnishings department. With neckwear a top fashion item in a man's wardrobe, yet relatively an inexpensive one, retailers find that smart display and merchandising of the more colorful numbers serves a double purpose: It provides a bright accent in an otherwise subdued department, an attractive focal point for the shopper's wandering eye; and, stopped by a cheerful tie display, the shopper is likely to make an impulse purchase of a tie in addition to the merchandise he came in to buy . . . which makes both customer and retailer happier.

One of the interesting developments in men's tie purchases is the growing sophistication of taste, resulting in less rigid conformity and more individual choices of color as well as pattern and fabric. Within the broad framework of current fashion colors, more and more men are expanding their tie wardrobes from the traditional "go with" colors to the subtler variations of new shirt or suit colors, contrasting colors, bolder patterns. Carefully chosen, such ties produce effects which are neither too dull nor garish, but lively, warm, and more interesting than the old standby's.

Interestingly enough, men's fashions very often reflect a sort of delayed reaction to women's top fashion colors. There may be a time lag, but the influence definitely shows up not only in accessories but also in suits.

The Diffusion of Vat Dyes Into Viscose Rayon

All classes of dyes diffuse into all fibers in a somewhat similar manner. Microscopical studies have shown that the first step in the dyeing process is the exhaustion of the dye from the bath onto the fiber. The second step is the penetration, or diffusion, of the dye within the fiber. The third step is the fixation of the dye within the fiber. This may be either a physical or chemical fixation depending upon the chemical nature of the dye and of the fiber.

In certain cases, such as with Acid dyes on wool, the reaction between the dye and the fiber results in salt formation. In dyeing rayon with Direct dyes, or cotton with Vat dyes, fixation may be due to van der Wall's forces or hydrogen bonding. In the case of fiber-reactive dyes on cotton, the dye is combined with the fiber by covalent bonds. Of course, these generalities are an over simplification of the dyeing processes because in each case probably more than one factor plays a part in the substantivity and fixation of dye within a fiber.

The art of dyeing, however, has but one aim; that is, to provide dyebath conditions which will promote a maximum levelness (uniform distribution of dye among a mass of fibers and along the length of each individual fiber), complete diffusion of dye into and throughout the fiber, and the development of the maximum potential color value, brightness of shade, and fastness properties for each dye regardless of whether the dyes are used alone or in combination.

It is quite difficult to select a combination of dyes, especially vat dyes, in which each will exhaust and diffuse at the same rate, and to the same extent. Therefore, most combination shades will contain some dyes which strike and diffuse rapidly while others exhaust and diffuse more slowly. The rates of strike and diffusion of dyes have been studied microscopically, and we have found this method to be an excellent means for determining the dyeing properties of each dye when dyed alone or in combination with other dyes. As an example, a combination of Calcoloid* Yellow GC, Calcoloid Violet 6RD and Calcoloid Jade Green N on rayon is used to illustrate the difference in rates of diffusion which may be found.

*Trademark

Figure 1 shows a photomicrograph taken 30 seconds after the dyeing was started. Within this short period of time the Yellow GC has diffused into the center of the rayon fiber. The Violet 6RD is part way into the fiber while the Jade Green N has formed only very thin rings of color on the outer periphery of the fiber.

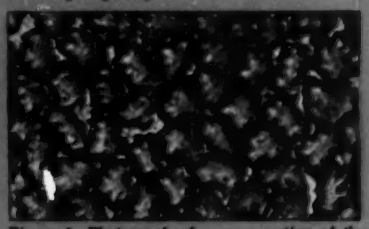

Figure 1—Photograph of a cross section of the viscose rayon fibers after dyeing 30 seconds.

Figure 2 shows a photomicrograph of a cross section 10 minutes after the dyeing was started. The interior of the fibers are now a light reddish brown shade due to a complete penetration of the Yellow GC and the Violet 6RD. Wider peripheral rings of Jade Green N have now developed.

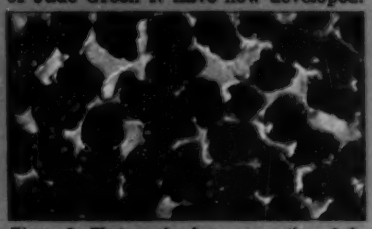

Figure 2—Photograph of a cross section of the viscose rayon fibers after dyeing 10 minutes

Figure 3 shows a cross section of the dyeing after 30 minutes. It will be observed that each fiber is colored a uniform shade of dark brown and all three dyes have completely diffused into the fiber.

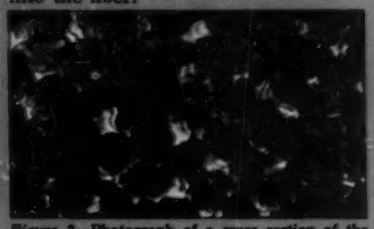
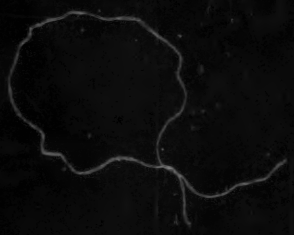
Figure 3—Photograph of a cross section of the viscose rayon fibers after dyeing 30 minutes. Note the complete penetration and uniform distribution of dye in these fibers.